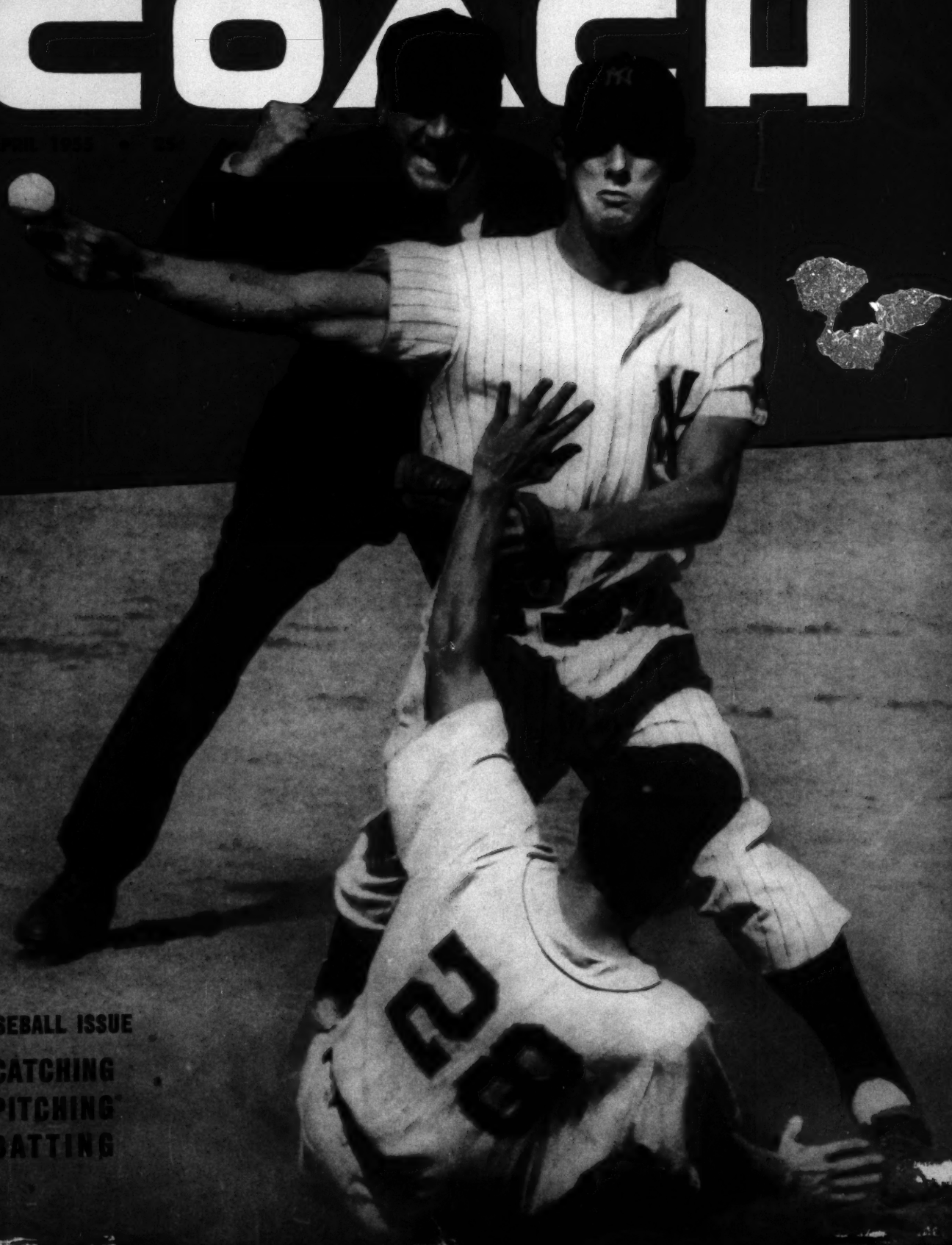


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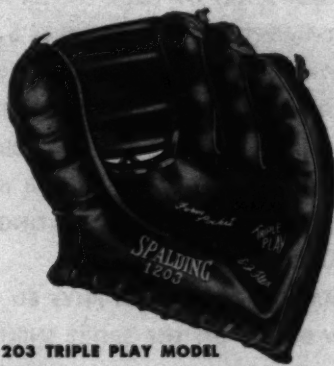


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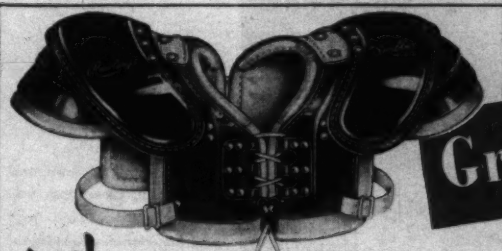
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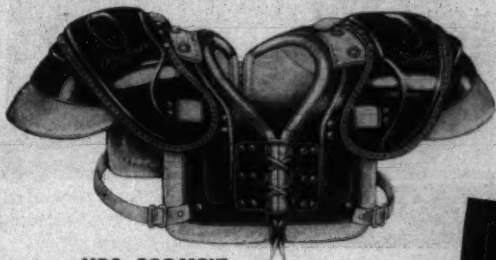
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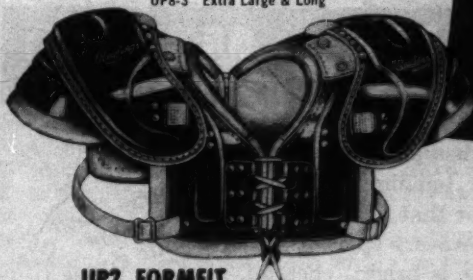
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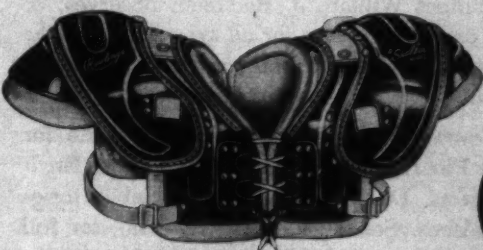
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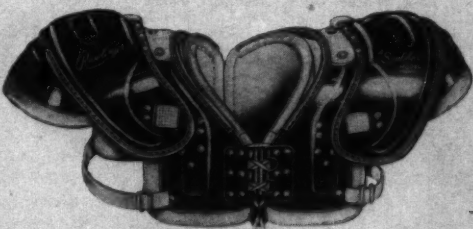
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MAYBE we're prejudiced. But we've always felt that our high school sports possess a little extra quality that makes them something special.

By "quality" we don't mean the caliber of performance. Our school-boy athletes are downright gauche compared to their college and pro brothers. Yet their very crudity is part of that extra something.

The high school athlete is the amateur personified. He plays the game with a youthful enthusiasm that's positively contagious and heart-warming. And the fact that he's always a local kid with his own rooting section of friends, relatives, and parents cements the bond between school team and community.

Everybody loves the kids, and lives and dies with the team. And everybody is always trying to help. This deeply personal interest in the boys and communal participation in the program just cannot be found on any other athletic plane.

Our thoughts on the subject were recently crystallized by an event at Warren, Pa. On the night of February 16, more than 400 townspeople crowded into Beatty Junior H. S. to pay homage to a local doctor—Franklin Gregg Haines.

This lean, gray-haired gentleman has never had any official connection with Warren High. But for 52 years he has served their teams *without pay!* In that time he has become known as the "Good Samaritan of Allegheny Valley." And the sobriquet aptly capsules the love and esteem with which he's held.

So gentle and retiring is the good doctor that nobody dared tell him what the occasion was for. It wasn't until the speech-making began that Dr. Haines discovered he was the hero of it. And when a huge gold football trophy—designed fittingly enough by one of "his boys"—was presented to the beloved "Doc," there wasn't a dry eye in the house.

That's the kind of thing, we feel, that can only happen in high school sports.

LITTLE RED-MEAT SCHOOLHOUSES

FROM the catbird seat in our ivory tower, we've been able to keep an eye on the coaching situation throughout the country; and we feel safe in asserting that the caliber of coaching has improved about 100% in the past couple of decades.

A large part of this is unquestionably due to superior college training. But a good share may also be attributed to the growing number of coaching schools sprouting up in every part of the land.

These little red-meat school-houses offer the coach a wonderful opportunity to learn the innermost secrets of his profession. Sitting at the feet of the masters of the trade, he can learn the best way of organizing his practice, installing a Split T, developing a weave from a 2-1-2 offensive setup, and so on. At the same time, he can swap opinions and ideas with a host of other coaches.

The caliber of the modern coaching school was forcefully impressed on us by a recent visit to Atlantic City, N. J. There, in massive Convention Hall, we attended the 1955 exercises of the National Football Coaches Clinic, now recognized as one of the two or three biggest coaching schools in the land.

Imagine more than 500 coaches—flanked on three sides by 42 sporting goods exhibitors—transcribing a steady stream of nuggets pouring from coaches like Terry Brennan, Blanton Collier, Jack Curtice, and Paul Dietzel.

The four-day program was run off as smoothly as a Paul Brown practice, and we felt obliged to seek out its generalissimo and congratulate him.

The guiding genius of the opera-

tion turned out to be a suave dentist named Harry G. Scott. Born and raised in Coatesville, Pa., Dr. Scott played football at the local high school and never got over it. Looking for a way to activate his interest in the game and contribute to it, he conceived the idea of a coaching school.

That was in 1948. The first clinic was held right in the high school during a spring recess. Since Coatesville boasted nary a hotel, several of the classrooms were converted into dormitories. And with Jock Sutherland and Fritz Crisler making with the X's and O's, the school proved a resounding success. The 47 attending coaches and eight exhibitors went home more than satisfied.

Within four years, the attendance rose to 250 coaches and 20 exhibitors. Coatesville High began bursting at the seams. So Dr. Scott moved his enterprise to Atlantic City. Though somewhat fearful of this radical step, he was reassured when 325 coaches showed up. And the attendance has been rising by 50 to 75 every year since. The 500-plus coaches at the 1955 clinic represented 25 states and Canada.

The carpet is rolled out for the visiting firemen. Over \$1000 in prizes are awarded by the exhibitors and a local organization picks up the tab for the sumptuous banquet that winds up festivities.

All this is a hobby with Dr. Scott. A large share of the profits—or all of it, we're not quite certain—is contributed to the Betty Bacharach Home for Afflicted Children.

The chief contribution to the funny-bone department this year was supplied by nimble-witted Terry Brennan. With the help of local high school players, Terry attempted to demonstrate the ball-handling in the Split T. To his dismay, no ball was available on the stage.

He called to one of the exhibitors,
(Concluded on page 63)

picture of protection!

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THROW TO SECOND: The catcher whips the ball back to the ear as quickly as possible, steps directly toward the bag, and throws with an overhand motion. The ball is held across

the seams to eliminate sinking or sailing, and extra steps and undue arm cocking are avoided to assure an instant getaway. Ball is delivered at knee level direct to the bag.

Part 2: Throwing-Handling the Pitcher

SCIENTIFIC CATCHING

IN my article last month, I broke down the catcher's job into 10 fundamental components, and analyzed five of them—giving signals, basic stance, catching the ball, catching fouls, and conditioning and equipment. Now for the others.

THROWING

The first prerequisite of a catcher is a strong arm. It doesn't have to be a real "shotgun," but it can't be weak. Quickness, accuracy, and know-how can compensate for sheer power, but a basic amount of strength is still necessary.

Correct fingering of a ball can add a lot of carry to it, and eliminate

By **RICHARD ELKIND**

the sinking and sailing which make the infielder's receiving job so difficult. The ball should always be held across the seams and thrown overhand. While there are exceptions to the overhand rule, it's imperative on a steal of second.

One of the exceptions is the situation with a right-handed batter up and a steal of third being attempted. An inside pitch may force you to throw high over the batter's head to avoid hitting him. This sometimes results in your left fielder getting a little exercise retrieving the ball.

For this reason, I always throw

sidearm (in this situation), starting the ball a little higher than usual since a sidearm throw has a tendency to sink and you must compensate for it.

Another exception to the overhand throw rule is the situation where you're attempting to pick a man off first with a lefty at the plate. A quick sidearm flip is advisable here for the same reason as the throw to third.

Where every pitch is caught in the middle of the body, throwing will come easier. A catcher should get the ball away quickly, eliminating extra steps and drawing back of the arm. He should throw from the ear, or even "short arm" his throw so

THROW TO THIRD: On an attempted steal of third with a right-handed batter up, a sidearm throw is recommended to avoid throwing over the batter's head into left field. Since

a sidearm throw has a tendency to sink, the ball should be started a little higher than usual. An experienced catcher can make this throw without a step, saving considerable time.





FIELDING A BUNT: Every bunt, whether it's rolling or has stopped, should be picked up with both hands—the glove serving as a buffer. The catcher should get out like a panther and field the ball from a side, maneuvering his body into a balanced throwing position while picking up the ball. If there's time, he should straighten up and make his regular overhand throw. If time is of the essence—as shown here—an underhand throw is advisable (but only if the play is to first or third). Note the beautiful footwork with which the catcher (the author himself) executes the hop and pivot into throwing position to first base. Perfect!

that the hand doesn't even go back as far as the ear.

If possible, the ball should be delivered at about knee level to the inside of the bag. The catcher should throw the ball directly to the bag, not waiting for the baseman to get there. It's his job to cover in time.

With men on first and third, I've perfected a play that's taken my club out of many a tight spot. When the runner on first breaks toward second, I step toward second and throw to third without looking down the line. Even if the runner on third has taken only a modest lead, so long as he's leaning toward home he'll be a dead pigeon.

Jake Early, the ex-big league catcher, taught me a variation of this play that's also proven effec-

tive. He's a master at executing a quick head and left shoulder fake toward third while throwing to second. He's bluffed back many a potential run with this stunt.

TAKING THROWS

According to the book, a catcher should determine where the ball is and make his play accordingly. If the throw is coming from right field, he takes a position on the third-base side of the plate, a few inches in foul territory. On throws from left field, he sets up in fair territory close to the first-base side of the plate.

As he receives the ball, he drops to one or both knees and puts the ball in front of the plate—forcing the runner to slide into it.

That's the "book" procedure and it certainly can be recommended. But I do it another way. No matter where the ball is, I assume the same stance—a balanced position in fair territory close to the first base side of the plate. My left foot is close to the plate, thus exposing the entire dish to the oncoming runner.

I wait until the ball is practically in my glove and then thrust the left foot in front of the plate so that a sliding runner will spin off the shin guard and miss the plate—or stop dead before touching it.

It's downright dangerous to block the plate too soon. You may panic the runner into coming into you straight up or throwing a cross-body block that will put you into a box seat.

However, if the winning run is coming in and there's any chance at all of getting the ball in time for a tag, get down and block the plate like the great wall of China. Rule 7.06 states that a defensive player cannot impede the runner in any way. But I've never seen this rule called on a catcher blocking the plate without actual possession of the ball. Of course you're taking a





chance of getting belted. But if the runner scores, you'll have a whole day in which to recuperate.

Another tag play I like is a variation of the "dummy" play in basketball. Stand off about two feet on the first-base side of home with hands on hips and head down but eyes up following the ball. A runner, seeing your obvious dejection, may assume there's no play and slow down or not bother to slide. At the last possible instant, grab the throw-in and tag the loafer—while he chews out the next batter for not coaching him properly.

A force-out at the plate is usually made by a drawn-up infield or a pitcher trying for a double play. If the ball is hard hit, the catcher should stand behind the plate on a direct line with the thrower, and handle the throw in the manner of a shortstop taking a throw from the first baseman. That is, shift according to where the ball is thrown so that you may catch it in the middle of your body, drag either foot across the plate, and make a strong throw.

If the ball is slow hit, get out in front of the plate and handle it like a first baseman—getting the one

sure out and cutting off a run. Then, look at the runners on second and third to see whether they've taken too much of a turn.

A pretty good stunt is available for this situation. When you know that the ball has been hit too easily to get both the runner from third and the batter, you can sometimes fake a throw to first, enticing a runner into making a big turn at second and third, and pick him off with a snap throw.

FIELDING BUNTS

Every bunt, whether it's rolling or has stopped, should be picked up with both hands. The glove should always help your bare hand pick up the ball. If you have a little time, maneuver your body into a balanced

throwing position while picking up the ball and then straighten up and make your regular overhand snap throw. Otherwise, get to the ball as quickly as possible and cut loose.

On a close play, an underhand throw, such as a second baseman employs, is advisable. Remember, every tenth of a second delay gives the runner a three foot advantage. But throw underhand only to first or third; second base is too far for an accurate underhand flip.

Since the catcher is the only player who can accurately size up a bunt play, he should designate the fielder and where to throw the ball at the top of his voice. A whisperer never made a good field general. So sound off.

(Continued on page 46)

FORCE-OUT AND THROW ON HARD GROUNDER: On a hard-hit bouncer with the bases full, the catcher straightens up behind the plate on a direct line with the thrower, and handles the ball like a shortstop taking a throw from the first baseman. He shifts according to where the ball is thrown so that he can catch it in the middle of his body, drag either foot across the plate, and make a strong throw. In this particular instance, he drags his right foot across the plate and hops into throwing position to first with all the skill and elegance of a good shortstop.



Curve-Ball Techniques

Featuring the Views of Seven Famous Curve-Ball Specialists

- ROBIN ROBERTS • HARVEY HADDIX • BOB PORTERFIELD
- SAL MAGLIE • CARL ERSKINE • PREACHER ROE • MEL HARDER

BASEBALL experts agree that the curve ball can be taught to any pitcher possessing an average arm and the desire to learn. Why then are there so few good curves? Is there some trick known only to a few or is the technique so complicated that only a few can master it?

Seeking an answer, I made up a detailed questionnaire and sent it to a number of outstanding big league pitchers. The answers, which I'll outline shortly, exhibit general agreement on the ingredients of a good curve. What's more, all of them clearly indicate that the good curve ball requires nothing more than proper technique and practice.

Replies were received from seven active or former big leaguers, all known for their excellent curves. Those replying were Robin Roberts of the Philadelphia Phillies, Bob Porterfield of the Washington Nationals, Preacher Roe, Orioles, Carl Erskine, Brooklyn Dodgers, Sal Maglie of the New York Giants, Harvey Haddix of the St. Louis Cardinals, and Mel Harder, coach of the Cleveland Indians and former pitching star of that club.

The following questions were asked:

1. How do you hold the ball for a curve—across seams, with seams, or other?
2. Why this particular grip?
3. What grip adjustments do you make as compared to the fast ball?
4. What special finger pressures do you exert for a curve?
5. What adjustments, if any, do you make in stride or other body movements when throwing a curve?
6. What adjustments in grip, stride, etc., do you make for a slow curve as compared to fast curve?
7. What theories do you have on the debate concerning the short sharp curve vs. the sweeping curve?
8. Exactly how do you release the curve—off side of fingers, off fingertips, or how?
9. Do you cock your elbow and/or wrist? If so, where in motion?
10. What do you consider the most important factor in throwing a curve?

As you can see, a pitcher who answered each question fully would just about cover all that could be said about his particular way of throwing a curve.

Now let's examine the replies.

How do you hold ball?

Four of the seven—Roberts, Roe, Erskine, and Haddix—hold the ball across the seams. Roe and Erskine turn the ball just a little to get a more comfortable grip. Porterfield and Maglie hold the ball with the seams, while Harder has an unusual preference—across the seams where they're close together.

Why this particular grip?

Carl Erskine has a good argument for holding the ball across the seams. He says, "... when the ball is released over the top of the fingers, the four seams are rotating." (Meaning that all four seams are at right angles to the direction of spin.)

Harvey Haddix, also an across-the-seams pitcher, says, "It (the ball) just fits in my hand better" that way. Preacher Roe uses the cross-seams grip because it "allows me to feel the ball better and insures better control."

Others find a different grip more comfortable and natural. Maglie, who holds the ball with the seams, says, "It is most comfortable for me that way and I get a better grip and release it better."

In the same vein, Harder says he prefers his unorthodox grip "in order to get the feel of the seams at the end of the first and second fingers." Roberts is not particular. He just wants "any grip which produces maximum spin."

What grip adjustment do you make as compared to the fast ball?

The striking thing about the answers to this question is that none

makes a change that could be detected from the coaching line. Four of the seven make no change at all.

Erskine holds the ball straight across for his fast ball and turns it slightly for the curve. Maglie simply makes a finger pressure adjustment—tight for fast ball, loose for curve. Harder slides his "second finger around the ball a fraction more and tightens, leaving thumb in same position."

What special finger pressures do you exert for curve?

Here the vote is for more pressure on the second finger. As Roe sums it up, "Pressure on the middle finger, the first finger for guide only." Erskine says, "Second finger is gripped tighter and is principal finger in giving rotation."

The vote is not unanimous, however. Maglie dissents, saying, "There is more pressure on index finger. When I release it (the ball), I break my wrist." Although unorthodox in this respect, Maglie still has one of the game's best curves.

Haddix, known in the trade as a dart-thrower—i.e., he has a short, wristy motion—shows his dependence on wrist movement throughout the questionnaire. On this question, for example, he says: "No change in finger pressure—just use the wrist motion for the curve."

What adjustments do you make in stride or other body motions when throwing curve?

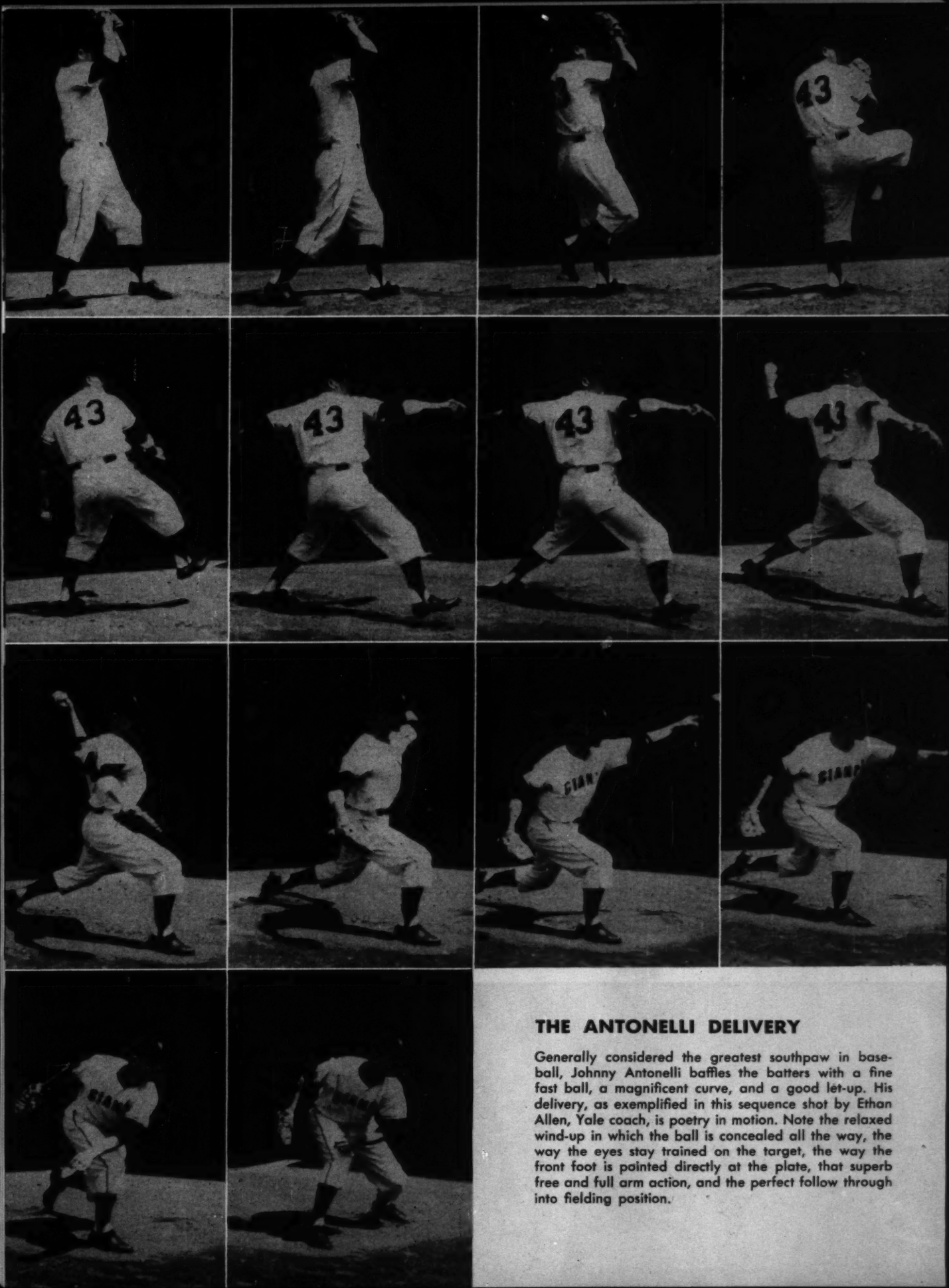
Here again, pitching is a simple proposition for Haddix. He says, "I don't make any adjustments in stride or anything."

Others adjust in varying degrees. Says Erskine, "I shorten my stride—arm comes in shorter arc." Harder says he sometimes takes a shorter stride—"just a few inches." Maglie is orthodox here: "I shorten my stride for the curve ball, which

(Continued on page 54)

By **MAL MALLETTE**

Ex-Brooklyn Dodgers, Montreal Royals



THE ANTONELLI DELIVERY

Generally considered the greatest southpaw in baseball, Johnny Antonelli baffles the batters with a fine fast ball, a magnificent curve, and a good let-up. His delivery, as exemplified in this sequence shot by Ethan Allen, Yale coach, is poetry in motion. Note the relaxed wind-up in which the ball is concealed all the way, the way the eyes stay trained on the target, the way the front foot is pointed directly at the plate, that superb free and full arm action, and the perfect follow through into fielding position.



AL ROSEN

HARVEY KUENN

WILLIE MAYS

DON MUELLER

HITTING

By LEW FONSECA

American League Batting Champion, 1929

Photos by ETHAN ALLEN

ANY fundamental analysis of hitting must necessarily embrace two basic considerations—natural assets and sound basic techniques.

A good hitter must have, first, trained eyes that are keen and fast moving; second, live hands and speedy wrists; third, good legs, courage, and quick thinking. Given these, a ball player only needs a sure knowledge of the fundamentals and then constant practice to develop into a good hitter.

Skill embodies three factors: the grip, the stance, and the swing.

Today's batting stars use three types of grips. They are:

The choke grip—bat held well up on the handle;

The modified choke—hands halfway up on the handle; and

The end grip—the bat held at the very end of the handle.

There are no fixed limits for bat grips. Some grips

are as much as six inches up on the bat. Just find a grip that suits you and feels right and stick to it.

Whatever your choice, be sure to put the bat well around it so both closed fists are pointed away from the body like a fighter's fists. This is essential.

Now for the all-important position of the hands. The proper hitting zone for the hands is behind the center of the body, with the hands held back in this hitting zone as long as possible so you can check your swing. Remember that *fundamental—checking the swing if the speed of the pitch changes.*

Keep your wrists cocked for fast, instantaneous action. The hands should be kept quick and alive for the swing. The grip at this point is only firm, enough to assure control of the bat—but tightens somewhat as the bat is driven in to meet the ball.

Keep the hands and arms comfortably away from the body. Stan Musial holds his hands 24 inches away.

FAIR PLAY for Football



FB-50

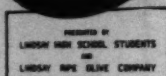
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This gives his hands and arms perfect freedom of motion for both checking his swing and speeding it up when necessary.

The bat is held well back waiting on the pitch. Practice this important fundamental, keeping the elbows and hands away from the body both before and during the swing.

A high position of the hands is recommended. Keep them about letter high, ready for the good high, fast ball. A movement downward from this position is much easier than having to raise the hands in a hurry.

Now let's take the stance in the batter's box and the foot action. When you walk into the batter's box, take a comfortable stance with your weight evenly distributed. A good batter may stand deep in the batter's box, like Stan Musial, or close to the plate like Ted Williams, or in the center of the box.

He may stand straight up or in a crouched position. He may use a wide foot spread or a narrower stance. He may stride only three inches like Joe DiMaggio, or 10 inches like Ted Williams, or possibly he may develop a controlled long stride.

While a few big leaguers like the narrow stance, most prefer a comfortable spread of the feet, then a short stride as they swing into the pitch.

Yes, you can become a stylist of your own at the plate, such as the big league stars we've mentioned. But we believe that young players will get into less trouble if they start out with a somewhat wider stance and a shorter stride, making it easier to control balance during the swing.

That control of weight is important. A good batter will hold his weight back on his rear foot until the last possible moment, not shift it forward until the instant the bat meets the ball. This way all the weight of the body is thrown in at the right time to add more power and proper timing to the swing.

Here's one fundamental we consider a "must": As the stride takes place, the hands, bat, and weight move backward away from the stride, waiting on the pitch.

Then the weight starts forward against a firm front leg . . . eyes on the pitcher . . . head held rigid . . . most of the weight at this point on the rear leg. Then . . . the all-important split-second wait on the pitch before the hands and bat start moving forward. This is the most important fundamental of good batting . . . hitting just after the stride, not with the stride.

Between the stride and the swing is that split-second wait before hit-

ting. You control your timing on the pitch. Remember this: Every consistent .300 hitter in the big leagues follows this one fundamental rigidly. Yes, every one of them strides first and then hits in split-second action with the hands in complete control of the situation.

There's no wasted energy and little body movement used while waiting on the pitch. The weight is shifted forward, but not until the ball is hit . . . holding maximum power for that crucial moment of impact.

The swing comes down and across the plate leveling out as it meets the ball. Then the wrists roll over as the ball is met well out in front of the plate.

A rotary hip motion is also necessary to a good swing. This free flow of weight allows real swing speed, and the hips are literally whipped into action as the bat hits the ball. The keynote of the proper stance at the plate is explained in just one word . . . "comfortable." No matter how tough the pitcher or how tight the spot you're in, be comfortable until it's time to swing. The tough part of batting is to relax physically and yet keep mentally alert.

The pull type hitter, for instance, regardless of stance, is the one who drives the bat forward fast, meeting the pitch well out in front of the plate—a proper fundamental if the stride and swing follow one another in split-second action.

HITS BALL WHERE PITCHED

The straight-away hitter hits the ball where it is pitched, waiting a split-second longer than the pull hitter before hitting the ball.

Both fast ball and breaking ball pitches away from the batter, to be timed correctly, should be hit to center and right field by a right-hand batter and just the opposite by a lefthand batter.

Fast hand action is necessary for the straight-away hitter.

In order to obtain perfect coordination, the foot action must synchronize with the action of the rest of the body.

A smooth style comes from coordination of grip, stance, and swing, which includes:

- Whipping the hips into the swing;
- Bending the rear knee and swinging against a firm front leg;
- Bat parallel with the ground at the time of impact;
- The front arm held straight and firm.

Yes, all these are important fundamentals; follow and remember this simple lesson:

1. Eyes on the ball.
2. Head held rigid.

(Concluded on page 63)

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By **BILL MILLER**
Coach, Beaumont H. S., St. Louis, Mo.



Scouting Track and Field

THOUGH scouting isn't commonly practiced in connection with track and field, it has a lot to offer the enterprising coach. Where teaching skill is complemented with intimate knowledge of future opponents, the chances for success are definitely enhanced.

Scouting can help you in the following specific ways:

1. It offers accurate information on future opponents with regard to the placement of their personnel, depth in each event, potential for the future, individual idiosyncrasies.

2. It offers a bona fide evaluation of times and distances with regard to site of the events, caliber of competition, and prevailing weather.

3. It enables the coach and team members to learn the techniques of each event, team strategy, and individual methods, as interpreted by other coaches and competitors.

Armed with a working knowledge of the area's top teams and individuals, a coach will be able to plan his entire season more intelligently. He'll be able to place his men in the best possible events in dual meets and in the best heats in large meets. The boys, in turn, will be aware of the tough opponents and thus be able to plan the best way to beat them or at least push them to the utmost.

The coach, by being able to "dope" scores, can establish a concrete team goal to shoot at in the larger meets. Relay placement is also facilitated; future dual meet scheduling can be

planned more wisely; and, finally, by getting a line on future opposing stars, the coach can know on what phase of his own developmental program to concentrate.

The first requirement in scouting is knowledge of the rivals' meets. Season schedules can easily be obtained from the rival coaches. The shrewd scout will remember that the most information can be gleaned from dual meets and from the preliminaries of big meets.

The scout will need a stopwatch or two, plus a clipboard listing all the events with room for five places. Now let's see what to look for in each event from both the team and individual standpoints.

SPRINTS (100 AND 220)

Team Scouting—record placement of top three or four boys (gives indications of relay strength) ... who doubles in sprints ... time for third and fourth places. Assume .1 second for each yard difference; if 220 is run on turn, deduct .4 or .5 seconds for approximate straightaway time.

Individual Scouting—note the boys' pre-race activities, practice starts, composure up to the gun start (this is best handled by a squad member). Record his time ... any outstanding features of his race, i. e. explosive or slow start ... when he moves up or falls back ... any easing up in middle or finish (this is often done with later races in mind; thus, subsequent slow time is misleading).

QUARTER MILE

Team Scouting—record number of

quarter milers running (this gives indication of relay depth; from a quarter mile base, runners can be called on for sprint, mile, 2 mile, and all medley relays). Record as many times to the closest second possible ... the majority will run in the 50's and 60's. A cross-country timing method can be used as they cross the line. Note the long wiry youngsters running 57, 58, and 59; they're the future stars. At the finish, runners are travelling about 8 yards per second (1.0). The difference in time between one turn or two is approximately .7 second.

Individual Scouting—record type of race ... front runner or finish kicker ... floater (turns) ... his position on the track ... what lane on the straightaway, on the turn, off the turn to finish. Record 220 and 330 times if possible ... how much of a competitor ... does he fight if challenged ... if and where runner "tightens up."

HALF MILE

Team Scouting—review quarter mile notes. Record number running (younger distance aspirants will be entered here). Times usually range from 2:00's to 2:30's ... differences in places approximately .5 second for 3 yards. Remember, the half and mile will show the most improvement as the season progresses. Difference in 4 turns or 3 turns is approximately .7 second.

Individual Scouting—record time segments ... type of race ... start ... steady pace ... pick up points ... good kick and where started ... any "tightening up." The boy who runs a 1:30 for 660 early will be a good one in late season. Have squad members study different warm-ups taken.



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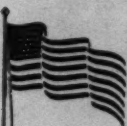
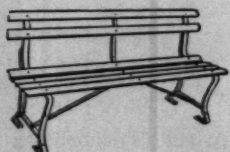
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FENCES

MILE RUN

Team Scouting—usually few enough milers in a dual meet to be scouted individually. One good miler makes a good distance medley team . . . average times between 4:40 and 5:10 . . . about 1.0 second per 6 yards difference in runners at finish.

Individual Scouting—record segments . . . 440 . . . 880 . . . $\frac{3}{4}$ and mile . . . also, type of runner, as in 880 notes. **Early season** 2:20 half and 3:30 $\frac{3}{4}$ good indication of 4:30's later . . . ability to pace self . . . good pacer has been well-coached. Have squad members watch pre-race warmup and post-race run-off of top-notch runners. Note competitive ability if race is close.

HIGH AND LOW HURDLES

Team Scouting—best boys can usually be spotted in pre-race warm-up. Time 3rd and 4th places . . . assume .1 second per yard difference. After race, check lanes with hurdles down and note finish place of runners hitting hurdles . . . lows around turn, allow for leading right leg. Good hurdler will be used in relays.

Individual Scouting—record position at 1st, 5th, 10th hurdle and finish . . . head action . . . trail leg action . . . speed between hurdles . . . charge to first hurdle . . . any difficulty in getting 3 or 7 steps between later hurdles . . . finishing speed . . . hurdle "stepper" or "jumper" . . . any saving for later races.

RELAY RACES

880 Relay—record running order . . . type of pass . . . smoothness in passes . . . bad pass is worth at least 1.0 second. Time segments from middle of 20 yard passing zone, regardless of where baton is actually transferred. Usually, #1 man in low 20's, #2 man in high 40's, #3 man in 1:10's, #4 man in 1:30's. Knowing this, all the timer reads off is the digit the watch hand indicates as the runner passes the mid-zone point. Coordinate names later with sprinters to find who doubles and triples and which good men were left out.

Mile Relay—record running order (the order often wins this race if passing lanes are assigned to first runners off the pole). Time segments, usually #1 man in 50's, #2 man in low 1:50's, #3 man in high 2:40's, #4 man in 3:30's or 3:40's . . . also record names of runners, and any items mentioned in the 880 relay.

FIELD EVENTS

While it's impossible to gather all the information on field performances, enough usable information can be acquired by recording certain standards of achievement such as all boys hitting over 19 feet in the broad jump. Field judges will answer the query, "How many boys over 19 feet?" quicker than if asked actual feet and inches of each placer. Specific individual achievements can be assigned to the squad member concerned. From the stands, good form and more frequently faulty form can be pointed out to or recorded for the squad member

concerned. This is an ideal setting for an object lesson on a technique not previously clear to a squad member.

The scouting of the field events will be covered in terms of: Standards of achievement considered pertinent, techniques that can be learned through watching good and bad performances, and circumstances that may be important in interpreting the results.

Be sure to consider the conditions of the jumping and throwing areas in recording results.

Shot Put—record any boys over 44' . . . good technique such as speed through circle, speed of release, shoulder drive, leg drive, head and back position through circle . . . also, competitive ability, pre-meet work including starting form, approximate distance of any good foul throws.

Discus—record any boys over 120' . . . good technique such as good turn, length of turn, type of turn (walk, run, or hop), carriage of disc while spinning, snap when released, flight of disc, pre-meet work, approximate distance of any good foul throws.

Broad Jump—record any boys over 19' . . . good technique such as consistency hitting check marks and board, position of torso at take off, lift of body, carriage of legs in air, position of legs on landing (forward), approximate distance of any good foul jumps or fall backs.

High Jump—record any boys over 5' 6" or the height with five men left competing . . . good techniques such as relationship of head and body and legs in clearing, effort involved for mediocre height (easy for good boys, tough for poor ones), follow through roll after clearing chin on the bar for belly roll, ear on the bar for western roll, record of any individual having a particularly "hot" night, any good men eliminated early.

Pole Vault—record any boys over 10' 6" or the height with five left competing . . . good techniques such as consistency in check marks, hand hold, take off; "swing" or "jump" type vaulter, hand control on pole, ability to invert completely to handstand, conversion of speed to lift, any good men eliminated early.

There's no substitute for first hand observation. And if the coach can bring his boys along with him, so much the better. Where the coach cannot possibly do his own scouting, a former squad member can usually be pressed into service. If absolutely nobody is available, the coach will have to resort to school and local papers for whatever information can be gathered.

Coaches who rely solely on newspaper coverage (for scouting information) are taking a risk. The news stories are seldom written by experts and, as a result, are often misleading with respect to a team's strengths and weaknesses.

A former track athlete at Indiana U., Bill Miller is now in his fifth year as x-country and track coach at Beaumont H. S., St. Louis, during which time he has won one state x-country title and one city track crown.



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THE BEST START OF YOUR LIFE!

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faster, more strongly, and with perfect body angle*

AFTER many years of speculation and theorizing by track addicts, the four-minute mile barrier was shattered first by the brilliant Roger Bannister and soon after by John Landy.

Why was it so late coming? The contributing factors are many, but the one that clearly stands out to most coaches is the new training approach of interval running—that is, running quarters back to back.

The high jump ceiling may well be the next barrier to be pushed skyward. After seeing Don Canham's remarkable film projection of the 1952 Olympic high jump event, I came away with the feeling that in the "jack screw" (to coin a phrase) type of jumping we may find the answer to the seven-foot jump.

The 16-foot vault could have been accomplished years ago by Cornelius Warmerdam—if he hadn't retired so early in his competitive life. According to the famous Dr. Ernst Jokl, an athlete usually hits peak performance between 25 and 30. Between 30 and 50, there's a leveling off period with no marked decrease in performance. So some day soon, another Warmerdam will come along with the "stick-to-itiveness" of Bob Richards—and watch that 16-foot standard fall!

The 13-second high hurdle ultimate might have been accomplished by Harrison Dillard. But his hurdle tangle in the 1948 Olympic Trials may have been his undoing. His hurdle clearance now rides with a constant safety factor of approximately 2 inches—with a flight span of 13 feet. He's in flight .1 second longer over each hurdle than the up-and-coming Penn State sophomore sensation, Rod Perry—who may well be the first to run the 13-flat high hurdle race.

Rod uses the "rocket ride" zero clearance now being employed by most young hurdlers, for the hurdle spill is fast becoming a thing of

the past with the advent of modern track equipment.

In the 100-yard dash very little progress has been made since Art Duffy ran his 9.6 century in 1902. Nearly 30 years later (1930) the fabulous Frank Wykoff rocketed out of U. S. C. to post his 9.4 hundred. The great Mel Patton came along in 1948 to shatter this mark with a remarkable 9.3—using starting blocks.

So, in 50 years, we find a reduction of .3 of a second. Must the world wait another 50 years for the 9-flat hundred? Possibly not. But where can we look for the answer?

First of all, as coaches we all know a few basic facts. In sprinting, our first task is to teach the boy how to overcome inertia and how to best propel his body from a stationary position to maximum momentum in the least possible time.

Somewhere along the line, coaches discovered that the stand-up start wasn't as effective as the crouch start. And the modern coach is fast discovering that starting blocks are much more effective than the old time "trench starts." Perhaps the 9-flat hundred challenge may be answered by a new concept in starting technique.

We all know from observation and experience that the 10-flat sprinter takes an average of 1.6 seconds to cover the first 10 yards—and yet he covers the last 10 yards in .8 second, just half the time.

We also know that speed acceleration levels off after approximately 5 seconds, or 30 to 40 yards out. As timers in big national meets, we've caught the Stanfields, Pattons, Braggs, etc., running under .9 seconds in the last 100 yards of the 440 relay or running an unbelievable 18.6 leg on the half-mile relay.

By JOHN MARZUCCO

Coach, Lower Merion H. S., Ardmore, Pa.

It thus appears rather obvious that the basic problem toward achieving the 9-flat hundred is one of overcoming inertia in the quickest possible time.

On the assumption that overcoming inertia to accelerate maximum velocity could best be solved by a new concept in starting, the writer reviewed a few mathematical axioms, laws of physics, and principles of structures, and set out to design starting blocks which would harmonize with Sir Isaac Newton's third Law of Motion.

These blocks were engineered to return fully the thrust upon them by the sprinter—in order to produce a *propelling reaction in direct alignment with the direction of flight.*

The reactionary force follows the vertical angle made by the body's low center of gravity in the "set" stance to its ultimate high point at maximum velocity—approximately 5 seconds away from the starting point. *In short, the runner is catapulted forward with great thrust while being automatically kept low.*

After a series of trials and errors, the pilot model—individual blocks made out of aluminum channels—was made to test this principle. With the aid of four high school sprinters and one hurdler, the following tests were conducted on Villanova's outdoor board track:

1. To determine how long it takes the average sprinter to leave the blocks completely from a series of five gun starts.

Results: Rear foot average of .1 second.

Front foot average of .5 second.

The rear foot pressure was approximately a fifth of the front foot. (Test based on depth of spike penetration on wooden blocks.)

The results of this experiment raised the question of what role, if any, does the rear foot pressure play in overcoming inertia? After a brief training period (front block used only) in which we stressed the rear "hot foot" lift with a simultaneous maximum backward push of the front foot at the sound of the gun, we repeated test #1.

Results: Rear foot left block almost instantly.

Front foot left block approximately .4 seconds—faster by .1 second over the original test.

We assumed at this point that the sprinter's reaction time is fairly constant and does not improve with

(Continued on page 66)

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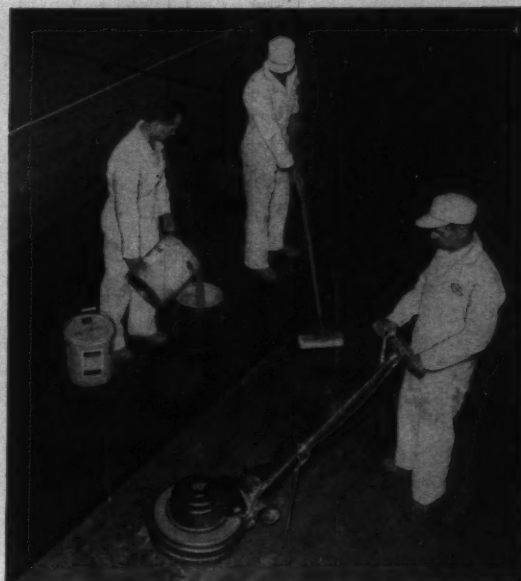
Soon hundreds of maintenance crews will take to the hardwood. Not for games, but for the serious business of reconditioning gym floors. Yours as well as your neighbors' across the nation.

How effective those jobs will be depends on the kind of work your crew does as well as the kind of finish you use. Correctly done, it will revitalize and protect your expensive playing court . . . it will prepare it for another year of good service, and give it extra years of life. Incorrectly done with poor materials, you may well have a costly result that is poor for basketball and hard to maintain.

For years, Stanford has had the advantages of a Seal-O-San floor. When they want it reconditioned, school officials rely on the services of R. S. Malmgren, painting contractor at Palo Alto. Malmgren and his men have found a relatively easy two step method:

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◀ Again three men quickly apply the new seal when free-flowing Seal-O-San is used. Anyone can do a good job with a lambswool applicator and Seal-O-San. Self-leveling, Seal-O-San can be easily applied without lap marks. It penetrates deeply into the pores of the wood, making an impervious finish that keeps dirt, moisture and stains on the surface where they may be easily removed.

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Fundamental Lacrosse Skills

By **ALAN C. MOORE** and **I. F. WAGLOW**

Physical Education Dept., University of Florida

LACROSSE is a superb all-around sport combining many of the fundamental elements of basketball, football, and ice hockey. The factors involved in introducing a varsity program were pretty well covered in Harry Dubick's article, "Lacrosse as a School Sport," in the May 1954 issue of *Scholastic Coach*. The purpose of this article is to describe some time-tested means of teaching the basic techniques.

CRADLING

The art of keeping the ball in the pocket while on the move or dodging an opponent is known as cradling. Unfortunately, few players are really expert cradlers. That's why you see so many players losing possession while going past an opponent, dodging around an opponent with a fast pivot, or changing direction. Many good scoring chances are lost because of such faulty cradling technique.

To improve your cradling skill, place the ball in your pocket and move the stick around in every direction. Move it from side to side in front of you, swing it in circles, twist it, bring it up and over your head, and swing it in circles at your side.

Do this while standing still, while running at full speed, and while pivoting in quick circles. Practice this drill holding the stick in both hands, in the left or right hand only, and while running backward. It will also help to use a tennis ball now and then, as

it is much harder to keep in the pocket.

Once you've mastered the art of cradling a tennis ball, a lacrosse ball will be easy for you. This skill drill is tough on your arm muscles and it will seem tedious and hard to practice regularly, but when you feel like skipping it just remember how much it will help you and keep at it.

STICKHANDLING

The vital art of stickhandling comes naturally to some and can be acquired by all. The following drill will help you acquire it: Make a circle about 25' in diameter and place three or four players inside it. The player who stands in the middle with the ball is known as the "Captain"; the others gather around him at stick length.

At a signal, the outside men try to knock the ball out of the Captain's stick. They're allowed to use their sticks to do so, but cannot hold, push, or body check. The Captain tries to dodge and keep possession as long as he can.

All play must take place in the circle, and the player gaining possession becomes Captain. You can play this game with one, two, or three against one. However, it works best when played two against one.

SCOOPING PRACTICE

While scooping a ball is relatively easy, it is the exceptional player who can pick up a loose ball with one

smooth, sure scoop. Most players have to stop a second time to make this play and often have to make several tries before they finally gain control in the pocket.

Because of this lack of skill, the average player spoils many chances to gain possession in a skirmish when clearing or when an opponent drops the ball, thus costing his team good fast break and scoring opportunities.

Regular sessions of "scooping practice" will develop this skill. A good drill is to put the ball on the ground about 20 yards from the players and have them run at full speed to the ball and scoop it up in one motion and continue to run for 20 yards. Spend 10 minutes a day on this drill, and in a few weeks you'll see your scooping skill improve.

When scooping, be sure to do the following:

1. Hold the stick in both hands with the butt of the handle pointing out past your side. Don't let it point at your body or between your legs.
2. Make the scoop with your stick on the right side a few times, and then on the left side.
3. Don't slow down as you reach the ball, keep up your speed.
4. When you get close to the ball, bend as low to the ground as you can and drop your stick so that your hands are below the waistline. Don't approach the ball in a way that forces you to bend over quickly and scoop down and up with your stick. Instead, approach the ball with your body low and stick held down, parallel with the ground.

This skill drill is fun when played as a contest for points. A point can

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be scored each time a clean scoop is made at full speed. The player scoring the most points in 12 tries is declared the winner.

RUNNING GAME

There's more to running with a ball than just speed and endurance. Many tricks can be used to improve your running game. Following are several of the most effective ones. Study them, practice them, and use them.

1. *Change of direction:* The idea is to approach your opponent as if going around his left side; then, as he runs over to cover you, suddenly turn to the right as sharply as you can. The trick is to make your turn sharply with a quick extra burst of speed and to change direction only when your opponent makes his play or move to you.

The best time to change is when your opponent is about seven to 10 feet away. Convince him that you're going one way and when he comes over, change direction quickly. Try faking left then going right, and then faking right and going left. Don't get into the habit of using this trick on only one side. A smart opponent will soon learn that you're a one-way man and will set up a defense to stop you cold.

2. *Change-of-Pace:* Variation in speed is one of the most difficult tricks to learn, but it's well worth the effort. The idea is to approach your opponent at half speed, and then suddenly increase your speed when he makes his move to check you. If you time your burst just as he makes his move, you'll throw off his timing and get past him before he can recover. This trick can be developed by a great deal of self practice, and with a little thought you'll be able to work out variations as you practice.

3. *The Cross-Over:* Run directly at your opponent and just as you reach him cross your right leg well over your left as if going in this direction. Then, as your right leg comes over and hits the ground, quickly swing your left leg back over your right and run in that direction.

This is essentially a zig-zag movement. When you swing your right leg over your left, be sure to lean over to your left; then return your weight to the right when you swing your left leg back over your right. The knees of both legs should be well bent when crossing over.

As you gain confidence and learn the feel of the Cross-Over, gradually increase your speed until you can do it while running at full speed. Try to use this trick both ways, starting by crossing over with your right leg first and then practice crossing your left over right at first. You'll find that you'll get best results (in a game) by using this trick while running at about three-quarters speed.

4. *Body-Shift:* This trick is very effective when close to an opponent or when trying to get past several players bunched in front of you.

Here's the idea: Just as you get within three or four feet of your opponent, sway the upper part of your body well over to the left and then bring it back to the right and go around him on that side.

Your sway to the left will make him think you're going that way. When you shift back, you'll catch him off guard. When swaying to the left, you must also take a step to that side, placing your weight on your left foot. It's also wise to change the position of your stick every time you sway your body.

BOTH authors are Springfield College graduates now teaching physical education at the U. of Florida. Before arriving at Gainesville, Alan C. Moore coached soccer and lacrosse at the U. of North Carolina from 1950 to 1953. During this time, he coached the South in the annual Coconut Lacrosse Bowl games played in Palm Beach and also served as assistant coach of the South in the 13th annual North-South All-Star Lacrosse Game. I. F. Waglow earned his letters in cross-country and lacrosse at Springfield and is now assistant department head (physical education) at Florida.

There are many variations of the Body-Shift and with practice you should be able to master them all. Do not employ a favorite shift all the time. Two variations of the shift are: shifting more than once as you approach your opponent, and actually going in the direction of the first shift.

5. *Pivoting:* Run straight at your opponent and just as you are about to collide with him, suddenly twist your body around in a complete circle so that you end up facing in the same direction. This will often enable you to roll off, around, and past your opponent. Make sure you can do it in either direction. Don't just twist to the right or left.

The best way to develop your pivoting skill is to run down the field pivoting every five or 10 yards, first left and then right. You can also practice this trick with your teammates by setting up in a line about five yards apart, and have each take turns running down the line executing pivots.

In using these tricks, always make sure to hold your stick as far away from your opponent as possible, well protected by your body.

SHOOTING SKILL

Here are a few hints and suggestions that will develop your ability to score goals:

1. *Bounce Shot:* When not close to

the goal, try a bounce shot that hits the ground in front of the goalie. A shot that travels considerable distance in the air is a sure save for a skilled goalie.

2. *Head shot:* A shot aimed at the goalie's head will often produce a goal, as he'll find it difficult to use his stick effectively and will be inclined to dodge or duck, spoiling his chances of stopping the ball.

3. *Change-of-Pace:* Use a change-of-pace as well as a fast shot. Just as the ball is about to leave your stick, tighten the arm muscles. This will slow up the shot at the last fraction of a second and fool the goalie, who will be expecting a fast shot. Remember that this shot should be used only when close to the goal.

4. *Study the Goalie:* Goalies have certain weaknesses. Some are weaker on their left side than on their right, some play low shots better than high ones, and some tend to jump too soon on high shots. It's therefore a good idea to watch the goalie very closely and carefully. Once you detect his weak spots, try to capitalize on them.

WALL PRACTICE

In every game there are many chances to score, get an offensive play started, or clear the ball from dangerous territory. Many of these opportunities are lost because some player fails to keep a pass in his stick or because a loose ball isn't picked up without hesitation and fumbling. This inability to control the ball usually stems from just plain lack of practice.

The best way to develop ball-handling skill is through plenty of wall practice. Find a suitable brick wall, such as an outdoor handball court, indoor handball court, or any plain wall in the gym with plenty of area around it. Throw the ball against the wall, catch the rebound, and throw it back against the wall.

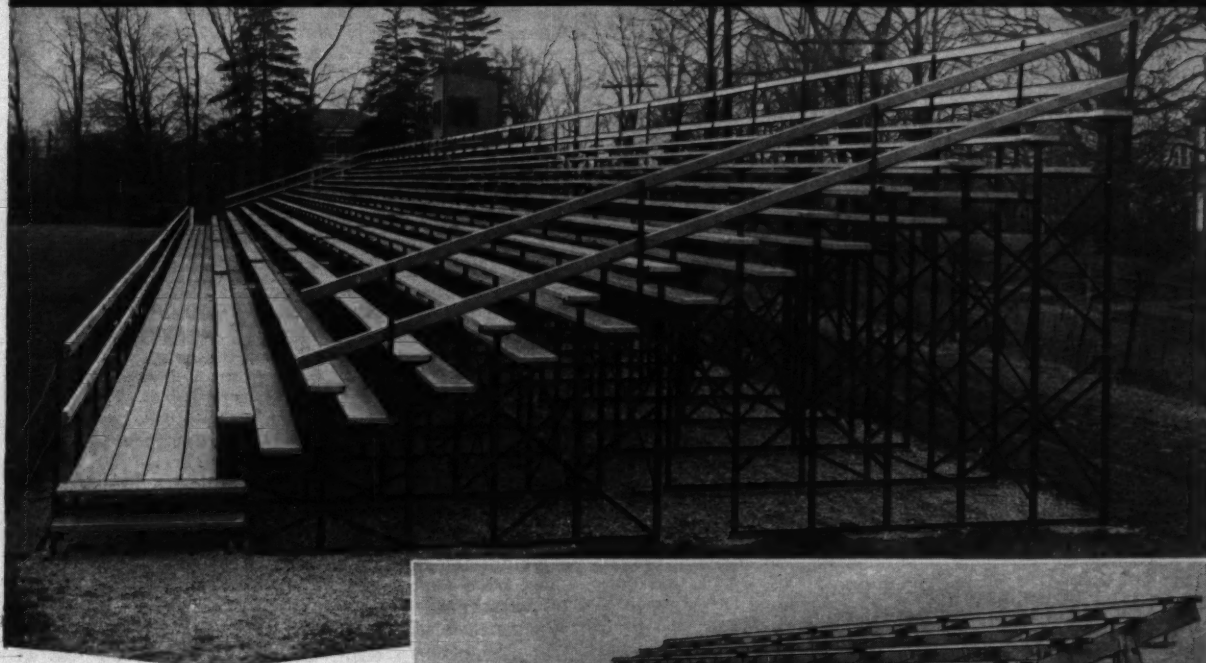
Try it from different distances, using every type of shot: bounce shots, right and left handed, shovel, side-arm, overarm, and over shoulder. Throw them low so that the ball comes back along the ground, a little higher so that the ball rebounds all the way in the air, and high so the ball goes over your head.

CONVERT INTO GAME

You can also get a teammate and make a game of it. Give yourself a point every time you handle a rebound without an error, and give the wall two points when you make an error. Whoever gets 21 points first is the winner.

If you cannot find a suitable place where you can use a lacrosse ball because of its weight, try using a tennis ball. With a tennis ball, you can make a board or garage door serve as a wall. This sort of practice is excellent, since it's much harder

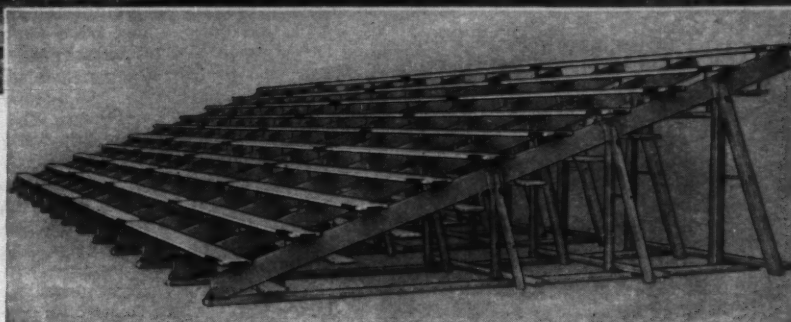
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TARGET SHOOTING

To improve your accuracy in throwing, draw a circle on the wall with a radius of 40", with the middle of the circle 5' from the ground. Practice throwing from distances of 6-8 yards, 10-15 yards, and 16-20 yards. Take shots from a standing position directly in front of the target, while running across the target from right to left and from left to right, from an angle 15-20' to one side of the target, both the left and right side, and while running in toward the target from various angles and directions. You can have a lot of fun playing a game of "21" with a teammate.

DEFENSIVE HINTS

1. Always keep between your opponent and your goal.
2. Study your opponent closely and make a note of his favorite tricks. You'll then be ready for him when he comes to you.
3. Time your body checks so that you hit your man as his weight comes to rest on the foot farthest from you. You'll thus catch him off balance and this will add to the effectiveness of your check.
4. Practice running backwards. You must be able to run backwards with good balance to be effective on defense.
5. When guarding a man close to your goal, run with him so that the butt of your stick is making contact with his body. This will enable you to keep track of his movements.
6. Don't lunge out to meet an attacker. Keep calm and let him come to you, forcing him to make the first move.

OFFENSIVE HINTS

1. Always keep your body between your opponent and your stick.
2. When approaching an opponent, plan your move as you go toward him. Don't wait until contact to decide what maneuver to employ to elude him.
3. Pass ahead of the receiver so that he can run into the ball at full speed.
4. After passing, always break for the open spaces to be in position for a return pass on a give-and-go.
5. When passing, try to come to a complete stop if possible before throwing the ball.
6. When a pass is coming to you, run with short steps. This will enable you to maintain better balance and make it easier to change direction to get the throw.
7. Watch the ball carefully; unless you see the ball enter your pocket, you're not watching it carefully enough.
8. Never carry your stick in front of your body unless absolutely necessary.
9. When catching the ball, let your stick come back with it. Relax your

grip as the ball meets the pocket. Don't hold your stick in a stiff manner.

10. Use the "take away" trick. Hold your stick so that your opponent thinks he can check it; then, when he attempts to strike your stick, pull it away and go past him.

11. If your opponent is sticking closely to you and you want to get free for a pass, feint in one direction and go in the other.

12. Make your passes in a quick and accurate manner about shoulder high or a little higher to the receiver.

TRAINING EXERCISES

The ability to break away quickly—to get away at top speed—is very important and should be practiced every day. The best plan is to stand still and then suddenly explode into action by leaning well forward as you start and driving hard with a high knee action. Run a few yards, stop, and then go into another fast break. Repeating this exercise 20 times a day will help build up "quick break" ability.

All players should be able to jump high into the air quickly, since it's often necessary to go up for a pass or to make one. The "Atomic Jump" exercising helps you develop this skill. First, squat down on your heels; then, at a signal, come up fast and try to jump as high as you can. Upon landing, squat down again and jump as high as possible. Every time you jump, try to come up faster and higher, driving hard.

GENERAL TIPS

1. **Correct Grip:** Grasp the stick with only the fingers, leave the thumbs free, and do not hold it too tightly as this tires you out and hampers your stickhandling ability.
2. **Practice Passing:** Run up and down the field with your teammates passing to each other. Use short, medium, and long passes. Do this while passing sidearm, overarm, and underhanded, and learn to pass both right and left handed. Remember, a short, fast passing attack, with the ball going quickly from player to player, is a good offensive weapon.
3. **Running:** Conserve your energy as much as possible. A fine way to do it is to relax when running with your opponent or waiting for a break. Keep your shoulders and arms relaxed and limp. Don't let your body tighten up, and try each day to acquire a relaxed and smoother style of running. When sprinting, lean well forward and keep your head well over your legs. Leaning forward will increase your speed and save your energy.
4. **Throwing.** When throwing the ball, concentrate on using the "Power" arm—the hand on the butt of the stick. Don't push your stick forward with the arm closer to the top of your stick. The idea is to whip the stick forward with the lower arm, using the upper arm as a hinge and guide.
5. **Watch:** Use every chance you get to observe the best players.

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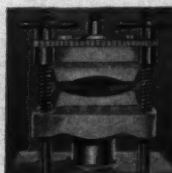
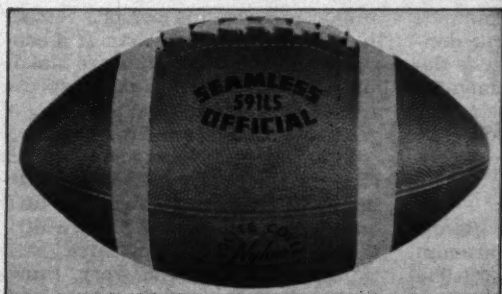
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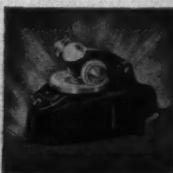
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MENTAL READINESS IN TRACK

By **W. HAROLD O'CONNOR**
Track Coach, Concord (Mass.) High School



WOULDNT you like to have a point in a tight meet for every time you've watched your best high-jumper clear 6' with the bar at 5' 9", only to fail miserably on all three tries when the bar does reach 6'?

If you haven't had that sinking sensation during a dozen track meets already, you haven't been at this game of pattering feet and straining muscles long enough to analyze your feelings adequately.

Maybe your frustration comes from a 45' shot putter who throws 40' in the big meet, or the high hurdler who can't make himself believe that the space between two hurdles can be covered in three strides. If neither jumpers nor hurdlers aggravate your ulcers, your troubles may be with the runner who's physically ready but mentally whipped before he even attempts to race a rival whom he respects too much.

We're convinced that one of the biggest coaching problems in track is that of trying to make some boys believe they can do what you *know* they can do. Don't think for a moment that such cases are found only on the high school or college level. Some great athletes have lost events to mental blocks.

Look no farther back than 1954 for your prime example. Until Bannister ran the race that said, "Open Sesame!!!" to the four-minute mile, no man in the world could make himself believe that he could do it. Yet within weeks after the mental block had been removed, Landy, Bannister, and then both of them had done the impossible. Now Santee and Neilson draw closer and closer to "miller's paradise."

Most of us aren't blessed with Landys, Bannisters, Santees or Neilsons, but we do have boys who face the same problem. They don't need to believe that they can break four minutes in the mile; they may

need to believe that they can break five minutes, or do 5' 6" in the high jump, or even take three steps between high hurdles. It seems to us that there's no greater satisfaction in coaching than the elation one feels in bringing an athlete past a mental block.

Can it be done? Well, if it couldn't we wouldn't have our four-minute mile or our 60' shot put, or a Monte Upshaw to break Jesse Owens' longstanding scholastic broad jump record.

Sometimes it can be done. Indeed it seems to us that in the future, as our records go lower and lower on the track and higher and higher in the air, mental readiness is going to be a more important factor in track and field than ever before.

Let's consider your high jumper first. Perhaps more often than any other track athletes, high jumpers have been called the "prima donnas" of sport. Maybe the title is deserved, but we have to remember too that when they hit their high note, there's a thrill involved.

KEYED TO EXPLOSIVE EFFORT

They're keyed up to a single explosive effort on each attempt. Theirs is probably the quickest trial in track with the shortest time in which to remedy a mistake. The more nervous your boy, the more necessary it becomes to have him mentally ready.

It's good psychology in high jumping to keep your boy away from the uprights when the bar nears his maximum height. It's even wise to instruct him not to try to read the heights registered on the uprights. We've even gone so far as to ask officials not to tell the boy the height if he should ask. Until a boy has achieved confidence, he will be harmed more often than helped by the knowledge that the bar has reached his maximum.

On the other hand, it's often a great mental boost for him to learn that he has cleared a height greater than he's ever achieved before. The realization then is helpful, not harmful.

When your boy is jumping against a nervous opponent, you can help him in another way. There's nothing so disconcerting to another jumper as seeing his opponent clear the bar on his first attempt when he himself is having difficulty. Jumpers sometimes get careless, so it is good coaching to impress upon your boy the psychological advantage of clearing on the first try whenever possible. This is physically important as well as mentally stimulating to your jumper.

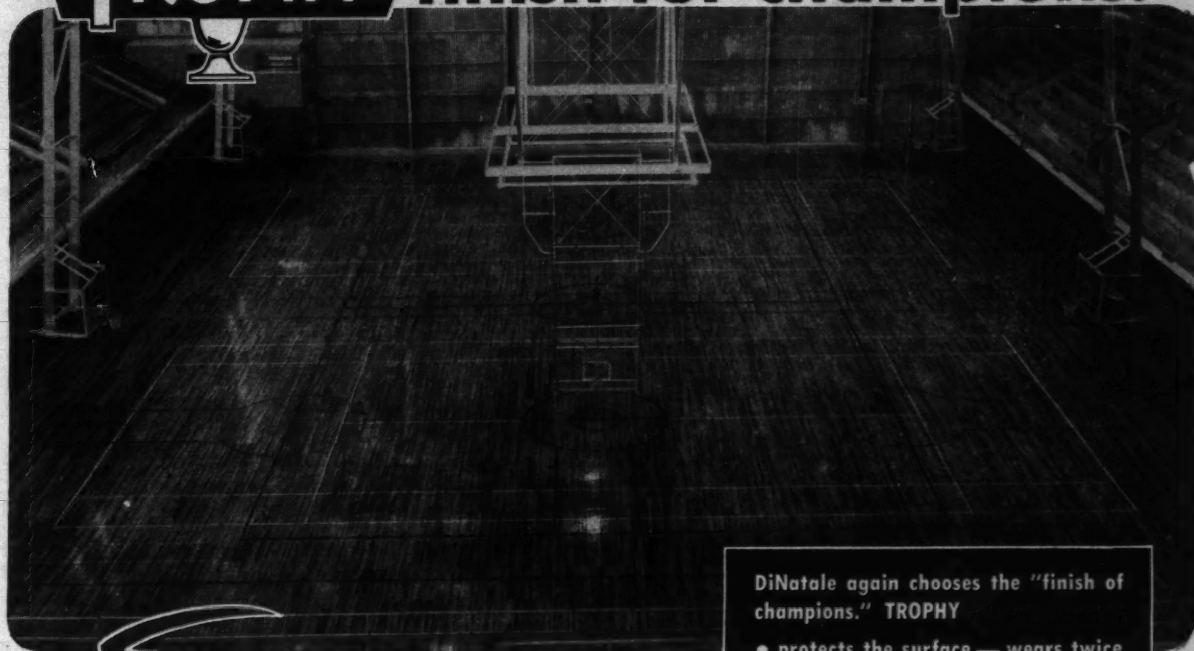
Perhaps you've never stopped to consider it as a handicap, but many a jumper is affected by the officials in charge or by the persons replacing the displaced crossbar. If a couple of very short officials are standing close to the uprights, they can give the jumper the illusion of greater height of the crossbar.

You can remove a mental block for your jumper by politely requesting such officials to move a little way from the uprights. Only a little thing, you think; yet such little things are often the very things that make a jumper go out well below his ceiling.

If your shot putter is the bane of your existence, maybe you can give him a mental lift too. Common complaints of the weight men are that they haven't taken enough warm-up throws or that they've taken too many. A fairly simple trick can be used to offset such mental blocks. It may even offer something advantageous from the standpoint of physical readiness.

Have your boy notice how many throws he takes before he gets away his best put each day. Have him count the throws every day for a week. He may discover that his best

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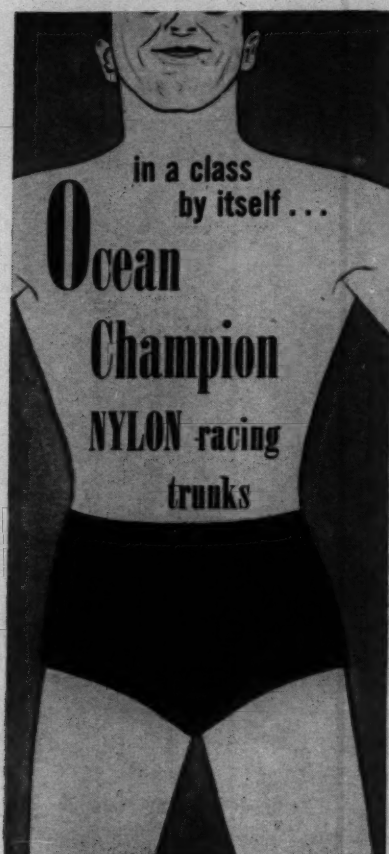
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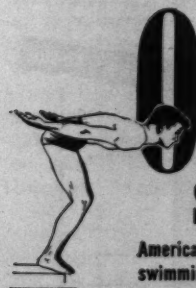


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putts seem to come after he has taken about eight or nine chucks. It's thus good psychology to have the boy take just that number of preliminary throws as part of his regular warm-up the day of the meet. He will then feel more confident of his maximum effort in competition.

Here's another trick, amusing in its simplicity but more effective than you'd guess in practice. Shot putters have a tendency to reach plateaus of progress. They master form and at once move out several feet. Then they seem to stick for a while. Part of that halt in progress is the result of a mental block.

You can speed the boy's progress by the simple trick of having him practice putting down a slight incline. The improved measurements are open to question, but they do a lot for a boy's confidence. We've seen the trick work several times.

The latest instance occurred only a couple of weeks ago. Not realizing my deception, a 40' shot putter found himself hitting 43' and 44' on the incline. He went into a regular meet four days later and was over 45' with each put. His best was 44' 6"! The only answer seems to be that he believed he could do it.

Trying to get a beginning hurdler to take three steps between the highs can be almost a major operation. There are dozens of devices that can be used to help him through this stage of his hurdling. They vary all the way from the use of adhesive tape as the top crosspiece of the hurdle to having your stringy pros-

pect watch a real shortie cover the distance with ease.

Teaching correct body position and forward lean, of course, play an important part. But cheating a couple feet on the distance between hurdles can work wonders with a beginner's confidence. Try putting the second hurdle about nine yards away from the first one. Without disclosing the trick, increase the distance as the beginner gets his confidence. Before long, the boy will find the three steps almost second nature.

Your runners' mental blocks can sometimes be overcome by making your boys concentrate upon some special phase of the race. It's very effective to point out a known weakness of a rival and make your boy so conscious of it that he focuses his attention on that rather than upon his own worries or fatigue.

With high school boys, you'll find it helpful to give them specific directions for moving at a given time to surprise a rival. Boys often become so engrossed in their plan of action that they go by the point at which they've been feeling distress. Passing this point of fancied weakness in a race can often prove a big factor in the improvement of a runner.

Don't forget the mental factor in competition. If runners raced only with their legs, half the worries of Coaches would be eliminated. Unfortunately, many boys are beaten mentally before they're ever beaten physically.

A Formula for Knee Treatment

WHEN muscle fibers are crushed, pulled or twisted violently, there is internal hemorrhage. The blood and lymph flow out into the damaged tissues. This fluid clots and crystallizes. The nerves are damaged, and quite often there is shock to the entire body.

When injuries of this kind occur in a joint, further complications are present. Ligaments are sprained, strained and torn. Bursae are ruptured and their fluid is added to the blood and lymph.

The problem isn't necessarily what has happened within the injury, but what to do for the player—how to gain recovery. Should the player be sent to the team physician? Should he be benched? Should cold applications be used? Should heat be applied; if so, what type?

All of these perplexing problems must be answered with every injury, but when it comes to twisted knees you may have a thousand of them—and no two exactly alike.

Even the expert cannot tell what has happened. If the x-ray shows no broken bones and the tibia and fibula are in proper position, the degree of internal injury can only be guessed at by the amount of swelling, the limited movement, the amount of pain with movement, and the degree of shock.

Here's a formula of things to do immediately, a few hours later, and daily until complete recovery.

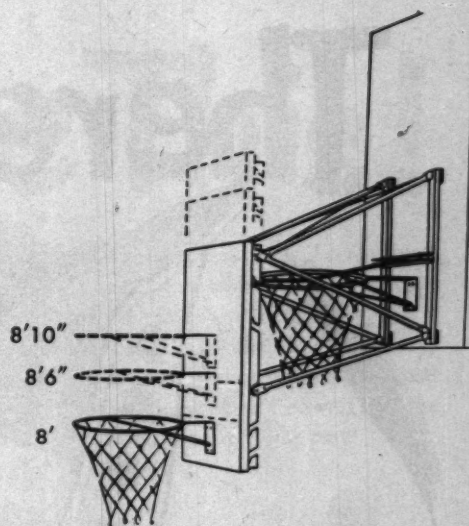
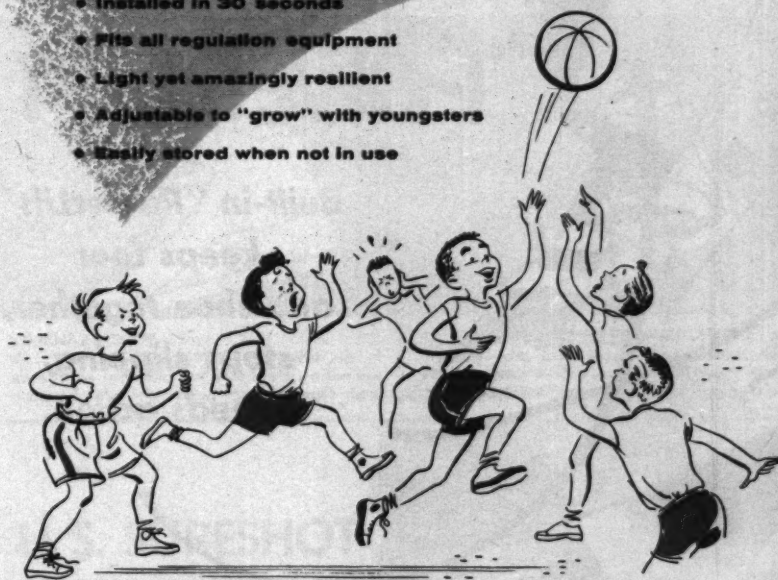
1. Take player to training room.
2. Remove sweaty equipment.
3. Wipe off sweat.
4. Put on some upper clothing.
5. Keep warm to prevent shock.
6. Apply elastic bandage around knee.
7. Apply cold towels around knee over elastic bandage.
8. Make patient comfortable and elevate knee about four inches.
9. Watch for shock and take patient's mind off pain by discussing game or practice. Wipe exposed areas of body occasionally to remove sweat.

—The First Aider

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"Little Kid" CONVERSION BACKBOARD . . .

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- Adjustable to "grow" with youngsters
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They'll enjoy this backboard more if they're using Pennsylvania's PBL-2 "Little Kid" basketball. It is 27 1/4" in circumference with the "feel" and appearance of a regulation ball. Youngsters progress as they play with "Little Kid" equipment.

ALWAYS WITHIN REACH!

Now you can scale the game of basketball down to match the physical capabilities of youngsters from 6 to 13 years of age. "Little Kid" conversion units adapt right to regulation backboards . . . just make hoop height adjustments to suit desired age group.

The "Little Kid" unit will double the utility of present basketball playing areas quickly, easily and economically. It's your best buy for the small fry . . . and be sure they're also using rugged regulation Pennsylvania rubber-covered basketballs!

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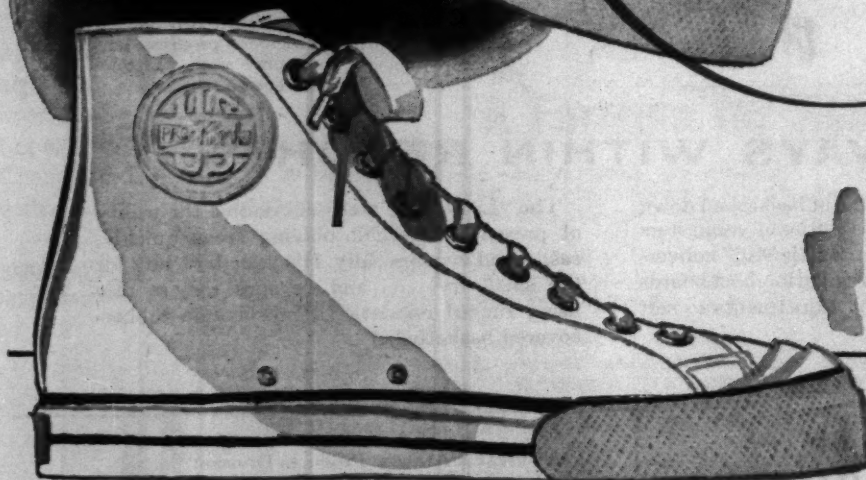
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"POWERLIFT"

*Built-in "PowerLift"
keeps foot
and shoe together,
stops slipping,
speeds action.*



Court-Tested by World's Champion Minneapolis Lakers



UNITED STATES

a Shoe Like This!

Here, for the first time, is a basketball shoe that actually lets the player use all of his native speed and maneuverability because this is the first shoe that hugs the sole of the foot, all the time, with every motion!

The reason is the new, patented "PowerLift", an elastic harness vulcanized into the sole that keeps the arch always in contact with every curve of the foot.

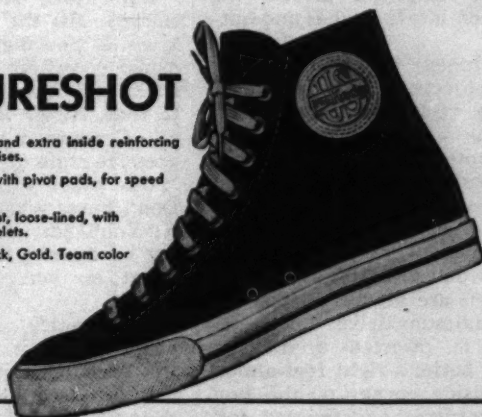
For the first time, foot and shoe move, and act, as one. The result is faster starts, less loss of power, quicker physical reaction to the player's reflexes.

The U. S. Royal has all of the design features that have made the U. S. Sureshot one of the great names in sport. Now, with patented "PowerLift", the U. S. Royal has no equal for top-flight play!



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The Shoes of Champions.

TEN BATTING TIPS FROM TY COBB



ABOUT 17 years ago, Sam Chapman, an All-American football star, jumped from the U. of California campus to the big league diamond.

His debut with the Philadelphia Athletics was a resounding failure. And a long procession of bad days followed, culminating with a day at Yankee Stadium in which he struck out five times.

Chapman's days became a nightmare. His confidence was completely shattered. He was convinced he didn't have it. When out of the clear sky, he received a letter. Across the top of the first sheet was the inscription, "Tyrus R. Cobb."

To Sam's amazement, he discovered that it was the great Cobb who had recommended him to the Athletics and who thus felt a sense of responsibility to him.

But, more important, the letter contained a series of superb batting tips—culled from Cobb's 24 years in the big time, during which he amassed the greatest lifetime batting average in baseball history—an astonishing .367!

These tips made a batting star out of Chapman almost overnight, and were passed on to many other big league hitters—always with considerable profit.

Offering a veritable encyclopedia of batting lore, they are relayed here, as originally published in *The Sporting News* on April 2, 1947.

1. *Don't grip your bat at the very end; leave, say, an inch or two. Also, leave at least an inch or more space between your hands; that gives you balance and control of bat, and also keeps the hands from interfering with each other during the swing.*

2. *Take a position back of the plate, especially against righthand pitchers; and against a man with a real curve, you can stay on the back*

line of the batting box. Now try to hit to right-center. I don't mean you should place the ball in any one spot, but start practicing on hitting your righthanders to the opposite field. An inside ball from a righthand pitcher you will naturally pull, say, to left-center.

3. *Don't slug at full speed; learn to meet them firmly, and you will be surprised at the results.*

4. *Now, to hit as I ask, to right-center or center, stand away from the plate, just far enough to enable you to hit to center the ball that curves on the inside corner. This distance away from plate will allow you to hit the outside ball to right. In other words, you protect the plate both on inside pitches and outside.*

5. *Remember, the plate is the pitcher's objective and he has to come to it. "Back of plate" means toward the catcher; "away from plate" denotes distance from plate toward outside of box. Now, use a slightly closed stance, and keep a little more weight on your front foot than back. That gives you balance and won't pull you away from curves. You are always in position to give maximum drive.*

(There is inserted a diagram showing a batter's right foot almost in the outside corner of the box, left foot forward and pointed forward to run nearly parallel with plate. "Try this," Cobb wrote, "and a curve ball will not bother you.")

6. *Don't pull a curve ball from a righthander. The ball is revolving away from you. Hit with the revolution and to right field.*

7. *Keep your left elbow cocked on level with your hands or even higher. Never let the elbow down below the hands, and keep your hands always well away from your body—keep pushing them out, even with your body or back.*

8. *Keep your back leg straight. Of course, if you put your weight more on the front leg, then the back leg will be straight.*

9. *If high fast balls inside really bother you, crouch over from waist and pass them up. Don't bite, in other words. In crouching, you make the pitcher throw lower, which forces him away from the position that bothers you. But I think with the instructions I have given, you will hit them wherever they pitch.*

10. *Against a speedy lefthander, don't pull. Use same stance I have given you, and when he throws you his curve, knock him down with it or you will naturally pull it, as the ball is breaking in to you. But against a lefthander of fair speed. Move up in the box, also closer to plate, and pull this style of pitching.*

Some of these points may seem uncomfortable at first, but if you practice them and stick to it, you'll start hitting line drives right from the start. Watch the good hitters and see where their arms, hands, and feet are. All this gives freedom of swing and power.

Stand before a mirror and hold your elbows as I've advised and see how you look. Then drop your left elbow below your hands and your right elbow to your side, and you will feel you cannot hit.

Don't take strikes (when in a slump). Hit the first good one for a while. You may unconsciously be using a system of taking a first strike and other teams may catch on to that. Never let them figure you out. Cross them up and keep an aggressive state of mind.

One other very important thing: Don't guess what the next ball will be. You'll sort of know what is coming by figuring the pitcher and the count on you. But never try to guess.

In practice, try a little more weight on your forward foot; keep the back leg straight. If you'll try this, I'm sure you'll get results; and the weight on the forward foot will make you step in correctly.

Also, do not stride too long, and keep your power in hand at all times—for any kind of pitch—and you won't pull away with any part of the body.

Decoy the pitcher by trying to convey to him that you aim to take the next pitch. And remember the catcher is watching you and gives the signals. So start your decoying tactics for his benefit as the pitcher starts to get ready—then take your crack at the ball.



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 award...uses Adirondack,
 the bat made by professionals
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From sandlots to
 the major leagues
 players agree
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 bats first year
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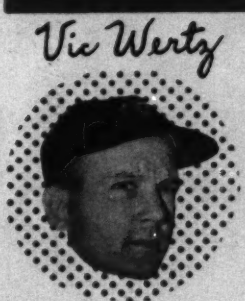
MODEL 302
THE BAT THE
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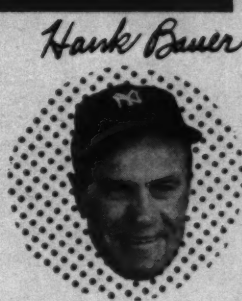
Gil Hodges



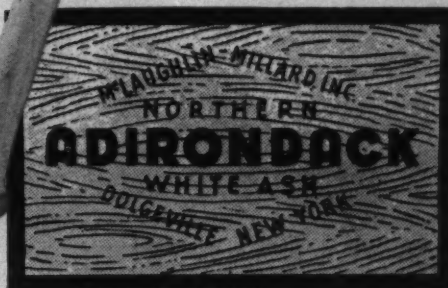
Al Dark



Vic Wertz



Hank Bauer





By **DON KLOTZ**, *Tennis Coach, University of Iowa*

Steady, Heady Tennis

LONG ago in his teaching and coaching experience, the writer learned to deplore the stigma that has been attached to "steady" players. They are so often called "pushers" by the player who contents himself with the assurance that he "hits" the ball when he plays a match. Win, lose, or draw he will always be a "hitter." No one will ever be able to accuse him of being a pusher, dinker, or blooper.

So many youngsters, and some not so young, are desperately afraid of being called "steady," as the term infers that they don't "hit" the ball. The common result is a comedy of errors when two of the "hitters" get together in a match.

Both try to hit the ball so hard and to play so aggressively that except on their hottest days, the ball is seldom hit more than twice by either player. It is simply a question of who will miss first.

Recently, a good junior player remarked to me after winning a tournament match, "All I could do today, Coach, was just play steady." His statement was obviously an apology to me rather than a practical analysis of his win, and as such indicated immaturity in his evaluation of tennis strategy.

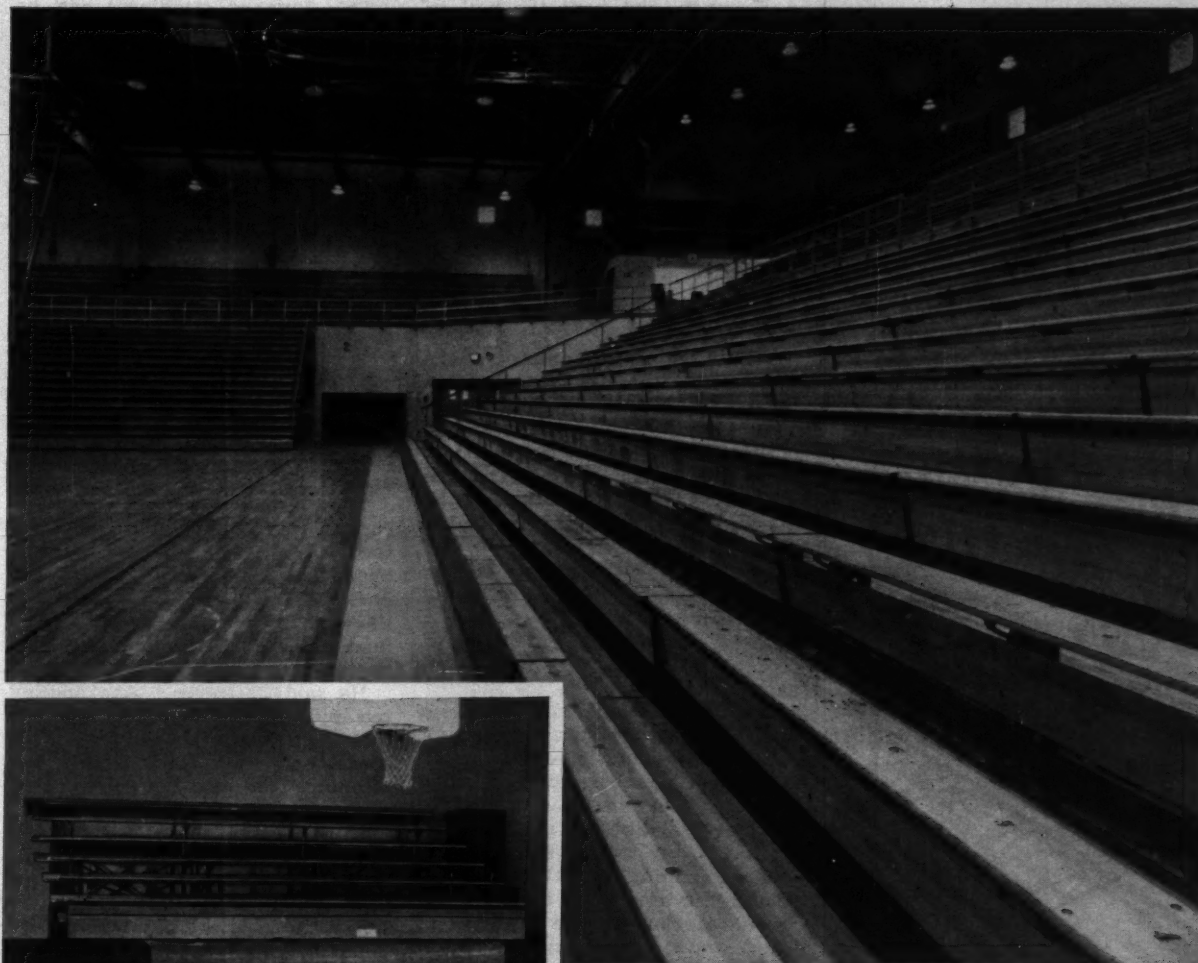
Here again was that underlying belief that to play good tennis, he had to "hit the ball." He must apologize for being "steady" in order to

RICHARDSON'S BACKHAND: America's No. 3 player, Ham Richardson, is shown taking one on the move. He steps across and slightly back to secure leverage, bringing the racket back (with both hands) at the same time. He comes into the ball with a fine free motion, extending the arm completely, so that contact is established a full arm's reach off the front foot. As he meets the ball, he lets the back foot come forward naturally, assuring proper balance. The follow-through of the racket is complete. Now take a look at his head: Note how the eyes stay trained on the ball.

win. One of his pals came by as we were talking and said, derisively, "Al, you won all right, but what a pusher!!"

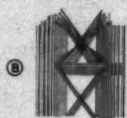
I saw part of this match and observed that Al was not up to his usual game. Ordinarily he plays what might be called orthodox tennis. That is, he serves well, rallies well from the base line, and will move into the net as the opportunity arises. But on this day his volleys lacked sting and his drives were erratic. Wisely, he began playing with a greater margin of safety





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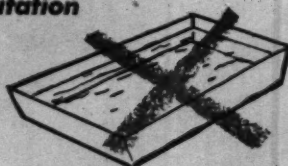


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on his shots and kept the ball in play longer. His strategy worked and he won by quite comfortable scores.

Should he be condemned for using his head to win? Should he have lost attempting shots which today brought him a losing game? Is there only one way to play competitive tennis? To his apology, "All I could do today was just play steady," I replied, "You won, didn't you?"

"Why, yes," he answered with a question in his tone.

"Al," I said with emphasis, "let's never forget that the aim in competitive tennis is to win, not to perform in our matches strictly according to a set standard. What pattern will we use in order to win any particular match? I haven't the slightest idea until I know what your opponent can and will do, and likewise, what you can and will do.

"Today you couldn't hit your shots with your usual assurance and crispness. So you used another approach, something Bob couldn't handle, namely, safer margins on your shots and the accompanying longer rallies. Personally, I think your match would have been much closer had you been playing your usual game, because that is the style of game Bob likes to play against. He hates long rallies. He is accustomed to ending a point within two strokes. He tries to hit too hard and much too close to the lines. Long rallies and steady hitting are poison to such a game. Don't ever apologize for changing your game to fit the situation for any one match, regardless of the pattern you select to win.

SELECT PROPER PATTERN

"Let me emphasize that I am not saying that you should always try to win matches with long rallies. That is as ridiculous as trying to win by just slugging in every match. Tennis is a great game because it offers such a tremendous variety in attack and defense. What we must do is learn to select the proper pattern for the match at hand. This you did today. It was safer margins and sustained rallies. You played it smart."

Steady tennis covers a wide range of steadiness from pure dinking, in which the ball is hit high above the net and reasonably deep with rallies up to 150 strokes, to rallies which may not average more than two strokes per player but in which one player realizes that he can sustain his game just slightly longer than his opponent and thereby win.

This type of steadiness can be illustrated by a match played by Bill Ball of Cedar Rapids, Iowa, in a final collegiate tournament singles match while he was a member of my University of Iowa Varsity at No. 1 position. I charted the match for errors and placements by both players. Bill won 7-5, 6-4. It was not brilliant tennis, overall, but he did hit an unusually large per cent of placements compared with his errors.

WHAT IS STEADINESS

After the match he glanced at the chart and remarked, "Looks pretty bad, doesn't it, Coach? Too many errors!"

"You did have a great many errors, Bill," I replied, "but you counterbalanced those errors by some beautiful placements. Your opponent was making fewer errors but likewise fewer placements." His next remark was what I liked to hear.

He said, "I knew I was making too many errors for good tennis. I also knew that I was making more placements than usual, and I was winning. I decided not to change a winning game."

Bill was playing just steadily enough to win. That, after all, is the final measure of steadiness. How "steady" does your game have to be? What is "steadiness?" That depends not on some kind of set standard but on the relationship between what we can and will do and just as much on what our opponent is doing with his game.

We must win a little over half of the points. We must be just a little more consistent, a little steadier than our opponent. The rallies might be rather long or they may be quite short. You may have to spar with an opponent who can sustain his hitting for long rallies, waiting for an opening to attack or for him to crack under the strain. Or you may have to make quite a large number of errors in order to keep forcing your opponent at every opportunity so that he won't force you. So long as you are winning better than half the points, consider that you are steady enough for that particular match.

Very few players learn to be "steady" until, as the old tennis adage has it, "they are too old to run." In this writer's opinion it is unfortunate that so many young players have such a horror of being termed "steady." As a result they consistently over-play their strokes in trying to live up to the belief

(Concluded on page 65)



MEMO

TO COACHES AND TRAINERS:

**Two important items
for your team equipment**



GRIDSHU

For It Minimizes Injuries!

A football shoe with canvas duck uppers, molded rubber sole and cleats, and rubber toe cap for kicking. Rubber cleats minimize the hazard of injury caused by shoes with hard, sharp cleats. Many colleges and professional teams use this shoe for practice and scrimmage.



TRACK SHOE

For Lightning Speed!

Ideal for cross country running, indoor or outdoor track. Canvas duck uppers are lightweight and cool, crepe rubber taps on outsole and heel give traction. Used by many athletic trainers as an outdoor warm-up shoe to help eliminate shin splints.

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Improved Football Officiating

THE Southern California Football Officials' Assn. has continually endeavored to improve their profession through the utilization of several media, namely:

1. Written examinations to insure adequate knowledge of the rules and officiating mechanics.

2. Discussion periods for analysis of actual game occurrences and clarification of rulings.

3. Use of experienced personnel as a rules committee for reference on controversial materials.

4. Game-rating cards for the purpose of determining relative strengths, weaknesses, and needs of officials in actual game situations.

The game-rating cards are submitted to the league commissioners after each game by the coaches and/or school officials. Each official is rated as being satisfactory or unsatisfactory in: (1) Knowledge and application of the rules, (2) Mechanics on the field, (3) Attitude toward players, coaches, and spectators, and (4) Any other phase on which improvement seems necessary or where special praise is considered appropriate.

Careful study of the rating cards over a period of years reveals a good general opinion of the officiating from the standpoint of rules knowledge. The great majority of unsatisfactory ratings stems from poor game mechanics and particularly from poor player-coach-spectator relationships and inconsideration for the rights of others.

These findings indicate a great need for reemphasizing the professional standards of conduct. This applies not only to the actual game administration, but to the conduct and personal relationships of the official prior to and after the game.

One of the primary aims of education is the development of good citizens. A good citizen is one who who assumes his rightful responsibilities in the community; who recognizes the will of the majority; who accepts the decision of legally appointed authority; who respects leadership as necessary for the accomplishment of goals; and who respects the dignity of the individual and the right of every individual to his own opinion.

By DONALD T. HANDY

Associate Professor, U. of California

Football offers wonderful opportunities for the development of all these concomitants of education, and it's the basic responsibility of *everybody* connected with the game to see that each youngster receives all possible assistance in the attainment of these objectives.

Keeping all these goals firmly in mind, let's see what basic suggestions can be offered to assure their realization.

PRIOR TO THE GAME

1. Know the rules and officiating mechanics thoroughly.

2. Make certain you possess a complete official uniform and that it is clean, pressed, and modern.

3. Make certain that you're in condition to operate at full speed for the entire game without undue tiring.

4. Refrain from contacting league commissioners for additional assignments. The opposite effect from the one you desire will probably be obtained.

5. If impossible to keep a commitment, notify the commissioner at once. Do not assign someone else unless so requested.

6. Don't "cancel out" on one game to accept a higher paying or more attractive game during the same time interval.

7. Keep an accurate, detailed calendar of accepted games. Know at least a week in advance where you're going, travel time involved, mechanics for the position assigned, and the condition of your uniform.

8. Arrive at the dressing quarters in ample time to assure being completely dressed at least 20 minutes prior to game time. This period should be utilized for the officials' conference, conference with the coaches, checking game ball, checking player and game equipment, condition of field, timing devices, towels, toss of coin, and other such factors.

9. Maintain the most cordial relationship with coaches, school officials, spectators, and fellow officials. This can usually be accomplished by remaining strictly impersonal in your actions and speech. For example: Refrain from undue criticism; overlook chance remarks of spectators; refer to the rules objectively in the settlement of differences; change the topic of

conversation when indicated. A serious, conscientious, yet cordial attitude on the part of the official will win respect.

10. Endeavor in all relationships to leave the impression of personal cleanliness and wholesomeness. Be clean shaven; free of body odor, unpleasant or tobacco-heavy breath; and possess a neat hair cut.

DURING THE GAME

1. Be completely impersonal and unbiased in all your decisions and penalties.

- (a) Refrain from making a show in calling fouls and from being militaristic or overdemonstrative. Be calm, quiet, friendly yet businesslike and concise.

- (b) Explain to the offender without interfering with the progress of the game, processes that can be utilized to eliminate further similar violations.

- (c) Call only those fouls you actually see. Warn on minor-borderline and first occurrence cases. Display a helpful attitude toward players and coaches.

2. Do not be a dominant, arbitrary person. Use of personality to overpower is never an approved technique in the learning process. It generally has just the opposite effect and develops defiance and sullen acceptance rather than the wholehearted cooperation that can be obtained through a calm, dispassionate description of violations and attached penalties.

Nothing can be gained through emotionally uncontrolled argument with players and coaches. Remember, as long as you've been approached legally, it's only common courtesy to allow the speaker to request and obtain clarification. Here again your reply should be given objectively, calmly, and impersonally with no show of impatience, defensiveness, servility, or belligerence. Respect the players and coaches and they will respect you.

3. Cooperate and work with your fellow officials.

- (a) Support—do not criticize, apologize, or leave the impression that one of your team of officials is weak or in error.

- (b) Assist—do not be "looking the other way."

- (c) Be a member of the team. Stick with the other officials in decision and action. But when it's essential to change a decision, do not shirk your responsibility. Walk off and on the field together and be friendly as you do so. This again gives the impression

(Concluded on page 62)

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championship
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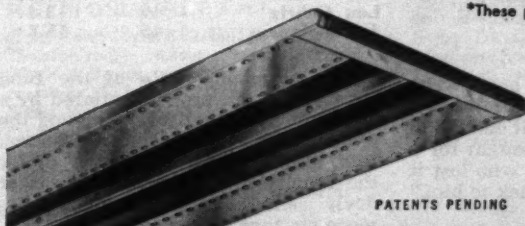
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COACHES' CORNER



Please send all contributions to this column to Scholastic Coach, Coaches' Corner Dept., 33 West 42 St., New York 36, N. Y.

MOST football experts remember the great Steve Van Buren strictly as a power runner. Not many of them realize how fast he could run. They forget that he was a track man at L.S.U. A great competitor, he ran the 100 with the same terrific zeal he exhibited on the gridiron—though not exactly with the same results.

In one championship meet, the track coach figured that LSU could win if one of his men garnered a point in the high jump and Van picked up another in the 100. Van patted his coach on the shoulder. "Don't worry," he said grimly, "we'll get those points for you."

Just as the race started, the announcer boomed that the L.S.U. high jumper had picked up two points instead of one—winning the meet for the Tigers. The gun barked and Van Buren got away in front. He held his lead until the 50-yard mark, at which point everybody started streaming past him. With about 20 yards to go, Van Buren dropped out of the race and jogged back to the coach.

"See, Coach," he snapped, "I told you we could do it."

Three members of the Fort Wayne Pistons were discussing the word "prestige" and what it meant to them. Mel Hutchins said prestige, to him, meant Stan Musial. Everywhere he goes, people speak to him, slap him on the back, and call him by his first name. "That's prestige to me."

Larry Foust had a different idea. "My idea of prestige is to walk into the White House and talk to the President. And he'd say, 'Hello, Larry, how's the wife and kids.' That's prestige as I see it. What about you, Zaslofsky. What's your idea of prestige?"

"It's like this. I'd like to be in Rome. I'd pick up the Pope and take a long drive down the main thoroughfare. Thousands of Italians would be lining

the streets, cheering like crazy. And they'd turn to each other and say, 'Who's that guy with Zaslofsky?' That's my idea of prestige!"

Jack Lavelle, the wandering minstrel of a football scout, was hot-rodding home from the Yale Bowl one Monday morning when a big, hard-looking motorcycle cop chugged up alongside and told Jack to pull over.

The mountie walked over to Lavelle's car, thrust his head through the open window, and snapped, "Tell me, Paul, are they coming by land or sea?"

When the Boston Braves with Babe Ruth came into Pittsburgh on May 25, 1935, the Pirates asked Waite Hoyt, an ex-Yankee, how to pitch to him. "I don't know," replied Hoyt. "But I'd try him high and outside and pray."

"Nonsense," pitcher Guy Bush sneered. "He's not so tough. I'd throw him my sinker and get him to hit it into the ground."

After Babe blasted one into the stands, Bush was brought in from the bullpen—and Babe promptly rapped two more out of sight.

Hoyt met Bush later. "You got him to hit into the ground, all right," Hoyt grinned. "Only the ground he hit was 500 feet from the plate."

Latest Yogi Berra-ism: A sportswriter, knowing Berra's love for money, asked him what he'd do if he found a million dollars. Berra thought for a moment. "Well, if the guy who lost it was real poor, I'd give it back to him."

After U. C. L. A. racked up Stanford 72-0 last season, a reporter asked the loser's coach, Chuck Taylor, "To what do you attribute today's defeat?"

When Bud Wilkinson says his prayers every night, he always wishes long life and good health to a farmer named Paul Burris. Paul runs a one-man football farm for Bud. He's pro-

duced six sons, and look at what they've done for Oklahoma football:

(1) Buddy was All-American guard in 1948; (2) Kurt was All-American center in 1954; (3) Bob will be regular fullback in 1955; (4-5) Lynn and Lyle, 17-year-old twins, were the mainstays of the powerful Muskogee H. S. eleven last fall, and will arrive at Oklahoma next September—Lynn is a crunching guard and Lyle a driving fullback; (6) Don also starred at Muskogee but a broken arm confined him to a year of jayvee ball at Oklahoma.

And that isn't all. Dad Burris owns five grandsons who are already eyeing grid careers from their high chairs!

When Willie Mays was unloading all those home runs in July, the experts began figuring his chances to break Babe Ruth's record of 60 homers—just the way they did when Ralph Kiner, Hank Greenberg, Jimmy Foxx, and Lou Gehrig were menacing the Babe's mark.

Now all those fellows were very tough guys with a bat in their hands. But none was a Ruth. And neither is Willie. What you have to remember is that pitchers "bore" down on the Babe more than on any other hitter in history. They seldom gave him anything good to hit at, and they walked him a record number of times. As a result, the Babe had fewer official times at bat than any of his rivals. (A base on balls does not count as a time at bat.)

That means Ruth had to clout 'em faster than anybody else. And he did. The year he swatted his 60 homers (1927), he averaged a homer for every nine times at bat. That's the all-time record.

Following is a comparative table showing the rate at which the great sluggers clouted home runs in their greatest season:

Name	Total Homers	Per Times at Bat
Babe Ruth	60	9.0
Hank Greenberg	58	9.6
Jimmy Foxx	58	10.1
Ralph Kiner	54	10.2
Hack Wilson	56	10.4
Johnny Mize	51	11.5
Ted Williams	43	13.2
Lou Gehrig	49	13.4
Joe DiMaggio	46	15.2

The outstanding quip of the Bing Crosby golf tourney was uttered by a spectator in the gallery. Watching the temperamental club-tosser, Tommy Bolt, hurl his putter up in the air for the umpty ninth time, the spectator dryly remarked, "Bolt's putter has more air time than Lindbergh."

The golf nut was tearing around the course with a buddy. On the 15th hole, they drove across a parkway, then started after their shots. Just then a funeral cortege came along. As the black cars streamed by, the golf nut removed his cap and bowed his head. His friend looked at him respectfully. "Gee, feller," he said, "that was an

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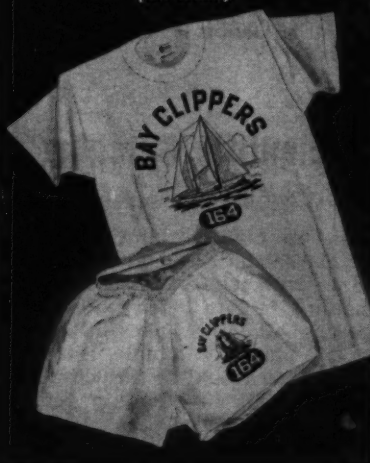
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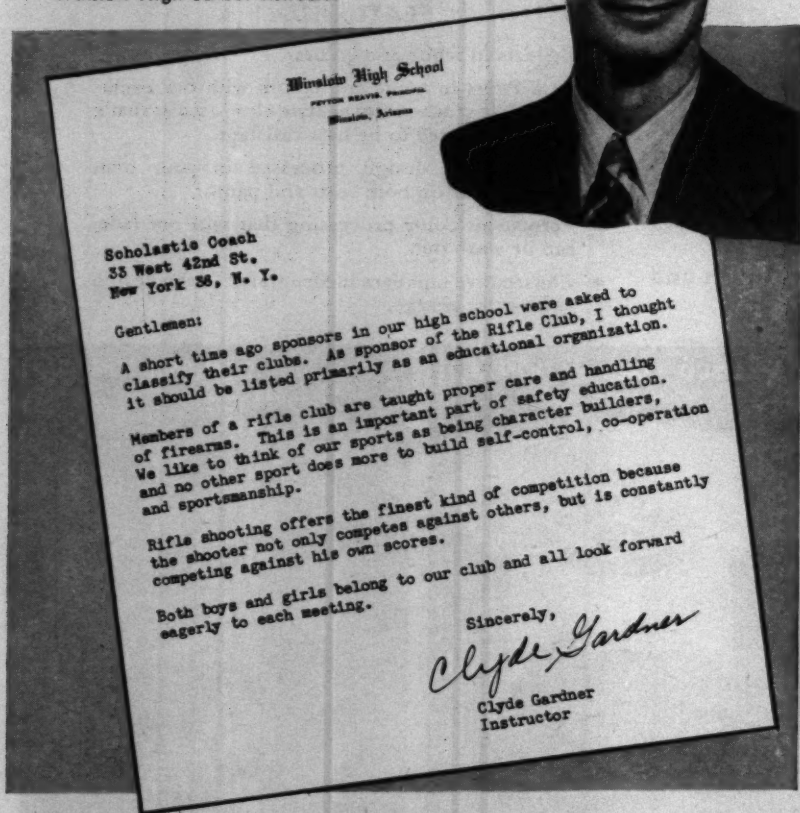
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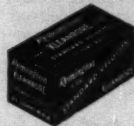


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awfully nice thing to do."

"Well, it wasn't so much," replied the golf nut. "Comes next Tuesday we'd have been married 25 years."

The demon bird hunter arrived at his favorite lodge for a week of shooting and was given a setter named "Varsity" as a bird dog. "Varsity" turned out to be a dream. He was a concentrated mass of eager, enthusiastic energy and the hunter made the biggest "bags" of his life.

Next year he returned and again asked for "Varsity." "Okay," replied the lodge keeper, "but we now call him 'Captain.'" Again the dog produced tremendous results with his never-failing pep and energy.

When the hunter returned the third year, he naturally asked for "Captain." The lodge keeper again obliged, but told the hunter that "We now call the dog, 'All-American.'" The setter was the same ball of fire and the hunter went away more than satisfied.

As you'd expect, when the hunter arrived the following year, he promptly asked for "All-American." The lodge keeper shook his head sadly. "It's no use," he said.

"What's the matter?" the hunter queried. "Did he die?"

"Oh, no," replied the lodge keeper. "We changed its name to 'Coach' and now all he does is sit on his hunkers and bark!"

Scientific Catching

(Continued from page 9)

On an obvious bunt play, the catcher should assume a more erect stance with the feet closer together, enabling him to get a faster jump on the ball. This makes a low ball a little harder to handle. But since the pitcher should be throwing high fast balls in an effort to get the bunter to pop up, the straighter stance shouldn't cause any difficulty.

Two good plays to remember on bunts are:

1. If a first bunt attempt is fouled off or is a called strike, an automatic pitchout is in order. Your first baseman should charge in toward home, while the second baseman goes straight to first for your pick-off throw. Never give away a pitchout by making your move too quickly. Let the ball come about halfway before shifting out. Otherwise, your move will telegraph the play to the runner, who has his eyes on you all the time.

2. With a man on second and a bunt in order, a curve-ball pitchout is a smart call. The ball is started over the plate, encouraging the runner's tendency to lean toward third. As the pitch curves away from the bunter, out of his reach, a quick

throw may catch the runner leaning or moving the wrong way.

BACKING UP BASES

A catcher should back up first on every throw by an infielder (except when it's impractical to leave the plate unguarded because of other runners on the bases). Don't lose your head and tear down on every play. A throw that gets by first base will also get by you if you're over-running your position and can't stop in time. *Hustle with a purpose*, not just for the sheer sake of running.

On line drives on which an attempt may be made to double a runner at first, back up the play—but far enough back to have a chance to retrieve a bad throw. Nothing is more aggravating than to see a pitcher back up third base by standing five or six feet from the third baseman. He might just as well stay on the mound for all the help he can furnish.

The same applies to any other player who gets too close to the man he's backing up. It's the catcher's job to yell the pitcher off the mound and into position to back up a possible overthrow of third or home. Yell to him as soon as possible—"Back up third!" or "Back up home!" Quite a few runs can be saved over the course of a season by sound backing-up techniques.

When the batter, with a man on first, bunts the ball so that the third baseman must handle it, the catcher should cover the unprotected bag (third) to prevent the runner from taking the extra base.

An alert catcher can be a lot of help whenever a batter bounces a single to right which pulls the first baseman over toward second. The runner, seeing that nobody is even near first, often will make a bigger turn at the bag on the chance that the right fielder will miscue.

If the catcher will "trail" him down the line and the right fielder is alert, a good throw may pick him off. I've worked this play several times and get as much satisfaction out of it as from an extra base hit.

HANDLING THE PITCHER

In handling the pitcher, the basic psychological point to remember is that everyone represents an individual problem. Where you can "get on" one pitcher and make him more effective, you may have to "baby" another.

If you feel that the pitcher is working too fast, you can slow him down by merely holding the ball a bit longer before returning it or by delaying your sign. Some pitchers who realize they work too fast de-



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velop their own decelerators. Robin Roberts is a good example. He adjusts the knee of his pants after every pitch. This isn't a nervous habit but a planned device to slow himself down.

There are two schools of thought on the timing between pitches. One holds that if a pitcher works too fast, he doesn't allow the arm muscles, which stretch with every pitch, to contract in time for the next delivery; and he thus tires more quickly and loses his stuff.

The other school contends that a slow-working pitcher is on his feet longer, where he could be sitting in the dugout resting. "You pays your money and you takes your choice."

A catcher should know more about pitching than his pitchers. A catcher who instills confidence in his pitchers by his knowledge of the game facilitates their job and gets more out of them. You must convince them that you will do the thinking while they do the throwing.

STRATEGY

The pivotal of catching strategy is the pitcher's control of the four basic pitches—fast ball, curve, change of pace fast ball, and change on the curve. If a pitcher is wild, it's almost impossible to work on a hitter effectively.

A catcher should be able to tell which pitch is the most effective on a given day and should call for it in the clutch. A cardinal rule of baseball is: "In a jam, come in with your best pitch."

If a pitcher's fast ball "moves" low and is straight as a string high, pitch the good low-ball hitter low. In short, *always let the hurler pitch to his own strength.*

Rip Sewell, ex-Pirate pitching great, once gave me a very intriguing piece of advice. He said that if a batter was a low ball hitter, he'd pitch him a little lower. And if he was a high ball hitter, he'd pitch him a little higher. Sewell's thinking was ingeniously sound: If a batter likes a particular pitch (Sewell reasoned), he'll go after bad balls in his "strong" zone.

Some general rules I follow against hitters I'm seeing for the first time include:

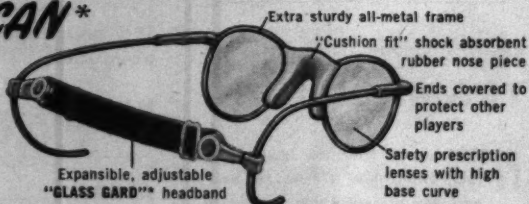
1. Pitch high and change up on a hitter who lunges.
2. Pitch fast balls inside against a hitter with a definite hitch.
3. Don't change up on a hitter with a wide stance who doesn't take much of a stride (a la DiMaggio). And don't change up on a pitcher unless you know he's a good hitter.
4. After a knock-down pitch to your opponents' No. 3, 4, 5, or 6 hit-

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ter, a change-up is a good pitch because most good hitters work up a "mad" after a knock-down and become over-anxious to murder the next pitch.

5. Change up when behind the count (1-0, 2-0, 2-1, and 3-1) to a good hitter, since he'll probably be looking for one down the pipe and will be over-anxious.

6. With men on base, change up on a good hitter on the first pitch, as he may be over-eager to knock in a few runs.

7. A lefty pitcher can sidearm a lefty hitter to death. I've never seen a lefty hitter consistently hit a southpaw sidearmer.

8. Every pitch should have a purpose behind it, even if it's a waste ball. Don't waste a pitch by practically throwing it out of the park. Throw it bad enough so that it can't be hit well but good enough to lure the batter into offering at it.

9. Don't throw inside or slow stuff to a lefty batter with a man on first base. The percentage is that he'll pull the ball into the hole created by the first baseman holding the runner on the bag and the second baseman cheating toward second for the potential double play.

10. With a man on second and none out, don't pitch outside to a righty batter or inside and slow to a lefty. A ball hit to the right side will enable the runner to move to third with only one out—and thus score on a fly ball.

11. A righty pitcher shouldn't sidearm a lefty hitter, and a southpaw pitcher shouldn't sidearm a righty batter—the reason being that the ball is too easy to follow from that angle. But, as I said before, if a man is a natural sidearmer like Ewell Blackwell or Harry Byrd, let him throw his natural way—to his strength.

12. The basic point to always keep in mind is that the secret of hitting is good timing. Thus, your primary objective should be to disrupt the batter's timing by the proper mixing of pitches.

THIS concludes a series of articles by Dick Elkind, former City College (New York) catcher now playing in the minor leagues. Elkind caught batting practice for the Dodgers from 1943 to 1947, and has been in two major league chains. A smooth graceful receiver, he posed for all the pictures that illustrated his articles. He may be reached at 67-70 Yellowstone Blvd., Forest Hills, Long Island, New York.



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Common Problems in Phys Ed Classes

- Should varsity athletes be excused from taking gym?
- Should a regulation uniform be required of the boys?
- How should the non-strippers be handled?
- What should be done for the modified students?
- What's the best type of testing program?

WHenever coaches gather professionally at clinics and workshops, the topics of discussion do not always revolve around coaching techniques alone. In many cases the coach is also a physical educator and is just as wont to talk about physical ed problems as about split T's and changing defenses.

Among the more common problems of the coach-physical educator are:

1. Should athletes be excused from P. E. classes?
2. Should a regulation uniform be required?
3. How should non-strippers be handled?
4. What should be done for the modified students?
5. What's the best type of testing program for P. E. classes?

While there's no unanimity of opinion on any one of these subjects, I'd like to pass on some of the ways in which they're being handled.

ATHLETES EXCUSED FROM "P.E."

Physical educators and administrators who believe sports participants should be excused from regular P.E. classes base their contention on the following points:

1. There is too much strain on the growing boy who engages in both a vigorous sport and a regular gym class.
2. Often the gym classes merely duplicate, on an elementary level, what is being given in the sports program.
3. Teaching loads in gym classes are lighter when athletes are excused.
4. Athletes can be scheduled in last periods, and actual coaching can be done during school time.
5. The coach's day is thus completed at a reasonable hour and players get home in time for dinner and not too tired to study.

6. This solves the administrative problem of giving either time off or a coaching bonus for extra-curricular duties.

Those who oppose this type of division do so for the following reasons:

1. Though sports are educational and therefore curricular in scope, they're not all-inclusive in their value and tend to make specialists of the participants.

2. This segregation places the athlete in a privileged position and may develop the wrong kind of social values.

3. Many activities can be taught in a P.E. program which will help the student enjoy life more fully after graduation.

4. The proficiency of the athlete is valuable as a motivating influence on others in class.

5. The gym class provides a more democratic atmosphere for the development of initiative, leadership, and followership than the pure sports program.

Our own high school adheres to the philosophy that every boy in school should have the advantages of a physical education program. We attempt to expose everyone to a number of activities which they might otherwise miss if they concentrate only on the interscholastic program. Among these are wrestling, tumbling, boxing, volleyball, touch football, soccer, speedball, softball, tennis, badminton, and track and field. Many of these activities have inherent values which I believe are very important, and some will add to enjoyment during leisure hours later in life.

Of practical import is the fact that we have discovered potential athletes through our gym program and have encouraged them to go out for a sport. One of our best half-milers was uncovered during a class track and field

unit. He had no idea of his own latent ability and might have spent all of his time at another sport in which he was less proficient.

I do not believe that it is too strenuous for the average boy to take a period of physical education before going out for practice. Actually the length of the period, not counting time for dressing and showering, is only about 30 minutes. Often the diversity of the activity relaxes rather than exhausts the boy before his practice time.

Criticism of the inclusive physical education program often seems to come from the coach who drills his teams too long in the first place. It also seems apparent that some instructors do not consider their own programs valuable enough to be given to all their boys.

REGULATION UNIFORM

Many instructors favor the wearing of a gym suit of the same design and color. The main reason given is that regulation gear is easier to check and keep clean. It's easy to mark standard suits with identifying names or numbers, and they certainly make for a better group appearance. It's so much more pleasing to see a class in similar uniforms than in a mass of conflicting styles and ragged garb.

Some instructors go further with this, by instituting different colors to indicate various classes or degrees of attainment.

Teachers opposed to this type of regulation do so primarily on the grounds of cost. It's also claimed that it takes too long to replace lost suits, and that a standard uniform tends toward regimentation.

It would seem that the principle of uniformity is subscribed to by the majority of men. The ideal towards which most would like to work is a situation where the school board purchases the suits and provides a school laundry so that clean equipment can be issued at least once a week.

HANDLING OF NON-STRIPPERS

Every gym teacher is acquainted with the boy who continually has some excuse for not dressing for gym. Even though this group may be small, it still poses a problem of motivation and organization for the instructor.

The logical way of solving this (Continued on page 60)

By ROGER BAER

Ath. Director, Santa Cruz (Calif.) H. S.

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New Books on the Sport Shelf

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THOUGH now coaching at the U. of Kansas, Chuck Mather made his reputation in the high school field. And what a reputation that was! At nationally famous Washington H.S. in Massillon, O., Chuck compiled a winning percentage of about .900—turning out one unbeaten eleven after another.

The secret of his success was, in a word, *organization*. And in this book he tells exactly how he did it. He provides an astonishingly detailed handbook on the management of a high school squad and the shaping of a team into a winning organization.

He covers his subject in 10 big chapters, namely: Organization, planning for the season ahead, the coach and the community, offensive line fundamentals, offensive backfield fundamentals, general line defense, forward pass defense, the kicking game, player evaluation, mechanical aids

(value of motion pictures, use of the IBM in evaluating players, use of television), and scouting.

All of these subjects are covered in microscopic detail, and illustrated with diagrams and practical charts. The appendix alone is worth the price of "admission," consisting of a wonderfully detailed player's notebook.

This is strictly a coach's book, and every coach on any level of competition will find it extraordinarily valuable in his work.

- **SCIENTIFIC BASKETBALL (2nd Edition).** By Howard A. Hobson. Pp. 267. Illustrated—photos and tables. New York: Prentice-Hall, Inc. \$4.95.

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- **PUBLIC RELATIONS IN EDUCATION.** By Clifford Lee Brownell, Leo Gans, and Tufie Z. Maroon. Pp. 249. New York: McGraw-Hill Book Co. \$4.50.

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Miscellaneous

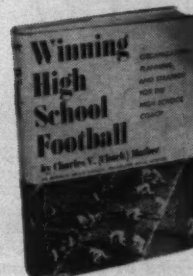
- **The Human Organism.** By Russell Myles DeCoursey. Pp. 550. Illustrated—photos and drawings. New York: McGraw Hill Book Co. \$5.75 (A magnificent human anatomy and physiology text which integrates these two sciences clearly and thoroughly.)
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Curve Ball Techniques

(Continued from page 10)

makes me follow across the body better."

What adjustments do you make in grip, stride, etc., for slow curve as compared to fast curve?

Different methods are apparent here, except in the case of Haddix who "makes no adjustments whatsoever for either." Roe says he uses a "longer or shorter stride—mostly longer."

Harder concurs with Roe saying he loosens his grip and lengthens his stride. Erskine tucks his elbow a little closer to his body (he pitches straight overhand). Maglie loosens his grip. Roberts replies that he uses "more body motion."

What theories do you have concerning short sharp curve vs. sweeping curve?

Maglie has a good argument for the sharp curve. He says, "Short, sharp curves are much better than the other because when the ball is thrown the batter doesn't know what it is until it gets on top of the plate."

Roberts echoes this, saying the batter has less chance of picking up (recognizing) the sharp curve in flight. He adds, "Control of either one is the biggest asset." Haddix says the sharp curve is best "on most hitters." Roe, the old master of breaking stuff, says, "I think a good pitcher needs both."

Interpreting the question differently, Porterfield says the "sharp curve is given a more elaborate twist than a sweeping curve." Harder backs this up, saying, "More snap creates more fast spin and faster break—slow spin creates sweeping curve."

Exactly how do you release curve—off side of fingers, off fingertips, or how?

The curve can be released off the side of the index finger near the tip or off the tips of the index and middle finger. The release off the very tip-ends requires a different, fuller type of wrist roll.

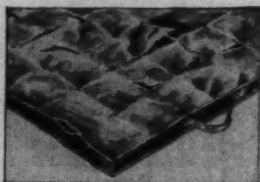
In either case, the exact point of release won't vary more than an inch. Many pitchers find they can impart greater spin by letting it go off the very ends rather than the side.

This may be attributed to the fact that the wrist possesses greater latitude of movement up and down than from side to side.

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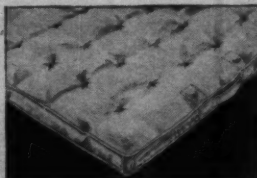
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Here the vote is split, four to three, in favor of the side of the fingers near the tips. Porterfield, Roe, Harder, and Haddix advocate the side-of-fingers release.

Roberts, Erskine and Maglie break their wrists a bit differently and release the ball off their fingertips. The fingertip release, incidentally, is taught in the Brooklyn Dodger chain to those who have insufficient spin with a side-of-fingers release.

Do you cock your elbow or wrist? If so, where in motion?

Harder makes the fullest explanation, saying he rolls his "forearm and wrist in toward the shoulder at the point where the arm begins forward motion." The others all favor a strong wrist snap. Porterfield points out that his wrist snap comes at the start of his arm's downward motion. Preacher Roe phrases it "the last minute of delivery."

What do you consider the most important factor in throwing a curve?

There is plenty of good advice here:

Maglie: "To control it and keep it low and away."

Harder: "Keep the elbow away from the body in order to get your full arm motion into the curve."

Porterfield: "Control and knowing how to set the hitter up for the curve."

Roe: "Control—being able to get enough rotation for a curve and always being able to control it."

Haddix: "Keeping the ball low where it has a better chance of breaking."

If all this advice could be condensed into capsule form, it might read: To throw the curve:

1. Grip the ball in a manner which is comfortable and doesn't require a detectable change from the fast ball grip.

2. Exert heavier pressure on the middle finger.

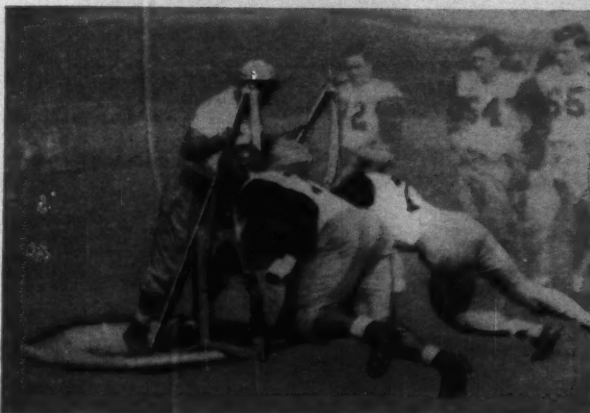
3. Adjust your stride as necessary and release the ball with elbow and wrist snap off the end or side of the fingers as you prefer.

And be sure to keep that curve low and outside.

If this capsule advice won't solve your problem, dig back through the mentioned variations and experiment with each until you get the right combination. And to keep your morale up, remember that many big leaguers spent years developing their curves.

Mal Mallette will be remembered as the "dark-horse" picked up in the draft by Branch Rickey in his last years with the Dodgers. A pitcher with the Montreal Royals, Mal had a great career before him—until an arm injury cut it short. He's now a crack sportswriter with *The Citizen-Times* in Asheville, N. C.

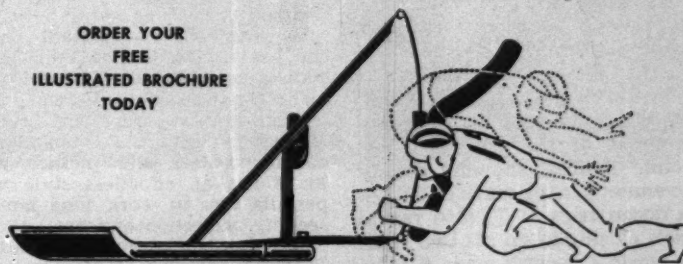
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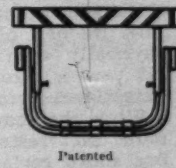
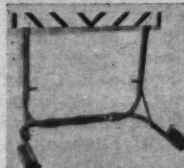
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ERNIE SHELTON

Techniques and Training

By BERT NELSON

HIGH jumping, to Ernie Shelton, is at once a competition—to be won, a goal—to be achieved by hard work and concentration, and an art—to be performed with grace and rhythm.

Statistics, which show Shelton to be unbeaten in a long, world-wide 1954 campaign, reveal his complete achievement of the first element. The same figures, showing steady improvement to a top mark of 6-11½ and a dozen tries at 7', also reveal how he's closing in on his two goals—the world's record, now 6-11½, and the first 7' jump.

But only the eye can reveal the rhythmic grace which makes Shelton's straddle style a joy to behold. Few jumpers in history, if any, have had Ernie's ability to draw such appreciative comments from experts and laymen alike.

Shelton's success is not accidental. Into the winning formula have gone indomitable determination, large quantities of hard work, and a love of the sport to make hard work bearable. He has, of course, been gifted physically with a good body (6-2, 165 pounds), good coordination, and exceptional spring.

While the above championship formula isn't restricted to Shelton, he has added certain ingredients which bear unmistakable Shelton authorship. These ingredients would include as much work in a week as some jumpers put in during an entire season, and a correlation between jumping and dancing.

Ernie has taken dancing lessons for many years, with great benefit to his jumping. It has strengthened his legs and ankles and added to his coordination and grace.

Dancing calls for constant practice and has taught Shelton the value of endless repetition of a special movement. It has also helped accustom him to what some regard as the drudgery of such repetition. Fortunately, and dancing enters the picture again, Ernie has an effortless style which permits him to work long hours in seeking perfection of form.

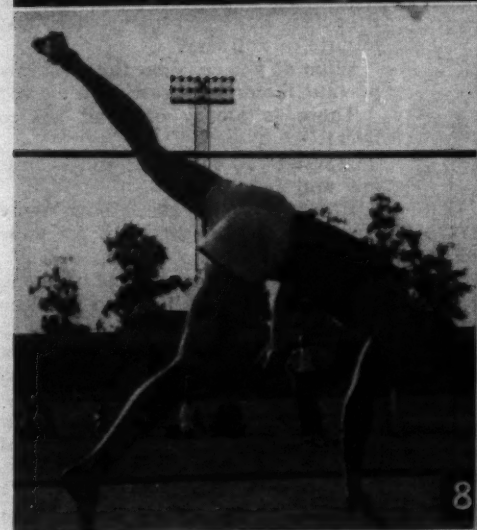
Finally, dancing has contributed to Shelton's consistency, the greatest in the business. A professional dancer, Ernie has observed, must and does perform consistently at his best. So it's no surprise that Shelton has never exhibited staleness and last year had ten jumps over 6-10, five of them coming in successive meets.

In preparing for these achievements, the U.S.C. senior works hard. His practice schedule is phenomenal. It's often criticized as wrong, and it may be for the average high jumper. Or it may be that Shelton is right and is pioneering new training routines.

At any rate, Ernie's practice schedule has produced great heights and great consistency in an event where inconsistency is expected. And it has done so without the injuries predicted by critical opponents of his schedule.

Ernie has no set practice pattern. He works only as hard as he feels like working. That is, he only works until he's tired, but he doesn't tire easily.

Warming up, Shelton walks as much as three laps on the grass and does stretching exercises for about 15 min-

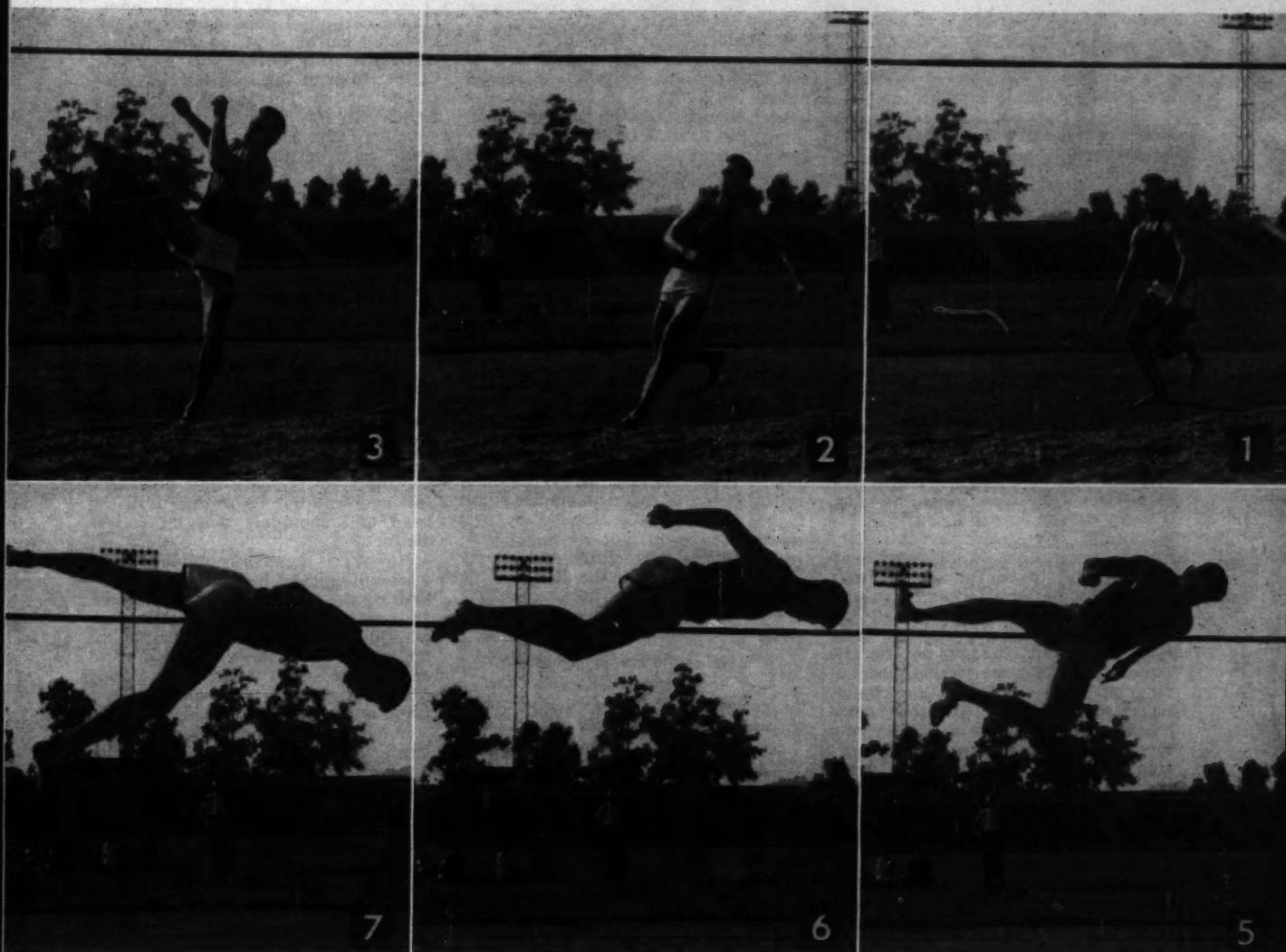


utes. He pays special attention to the stretching of the back and abdominal muscles and the posterior muscles of the legs.

Running constitutes a good part of his training. He may do up to a mile of windsprints, walking the curves and running the straightaways. Only occasionally does he run full speed. He prefers to run on the grass just inside the track, as most tracks are too hard for him.

Although they're not part of Ernie's regular workouts, he does putter around with other events. Recently he became interested in the decathlon, where he shows good potential. At Pasadena last summer, he won a decathlon meet with 6119 points, one more than second place in the AAU. His marks were: 100 meters, 11.7; broad jump, 21-1½; shot, 40-6¼; high jump, 6-6½; 400 meters, 52.9; hurdles, 15.2; discus, 118-8½; vault, 10-2½; javelin, 170-8½; 1500, 4:56.8.

But most of Shelton's workout is devoted to jumping. He jumps to the



point where anyone attempting to match him jump for jump would be forced to quit because of fatigue. Then Ernie goes to work in earnest.

He has been known to wear out a teammate at lower heights, before putting the bar at 6-6. He has cleared that height on as many as 25 consecutive tries. And still he isn't finished. He then pushes the bar to 6-8, where he may record as many as 13 straight clearances.

Shelton doesn't often try for maximum height. His usual mark is 6-8 or 6-9, with 6-10½ the best ever. He has tried 7' a few times, but not as often as in actual competition.

There's nothing hurried or sloppy about these numerous jumps. Each one is taken seriously and given careful attention.

In warming up, Shelton uses the western roll before switching to the straddle. Originally a western roller, Ernie sometimes goes to 6-6 or so with it in a meet, claiming it gives him diversity. His best western roll marks

NO. 1: Shelton approaches from 40' at about a 40° angle, gradually picking up speed. His approach isn't fast, however, he never sacrifices control for speed. He's in a near crouch as he begins last stride.

NO. 2: With his last stride, Shelton plants his left foot, heel first, at right angles to the bar. He leans into the bar and begins the kick which rocks him up and over the left foot.

NO. 3: The body is pulled out of the lean and is about to leave the ground as Ernie kicks with a semi-straight leg, parallel to the bar. The upward thrust of both arms is perfectly coordinated with the kick.

NO. 4: Leading the jump at all times is Shelton's shoeless right foot. The right fist is still clenched, while the left hand and arm, which have done their job, are beginning to relax.

NO. 5: Hips are still gaining altitude as Ernie's head and shoulders begin to turn, precipitating the roll-over of the entire body.

NO. 6: Atop the bar, Ernie is a picture of grace and about as near perfect in his economy of clearance as it's possible to be. Lead leg, head, and torso are over and both arms are thrust back and up.

NO. 7: His right foot is still leading, and with head and shoulders preceding the hips, Shelton comes down. The left foot is beginning to turn as the straight trailing leg comes over safely.

NO. 8: A graceful landing, with the sole of the left foot pointed skyward, completes a smooth, rhythmic, apparently effortless jump.

are 6-7½ in competition and 6-8½ in practice.

Before the competitive schedule begins, Ernie will jump every day. But during the season, he cuts his jumping to Monday, Tuesday, and Thursday of each week. A full day of rest, with as little exertion as possible, precedes each meet.

Dancing, of course, isn't solely responsible for Shelton's ability and desire to engage in tremendous amounts of hard work. His innate desire to succeed has been boosted by his years at SC, the world's most prolific breeder of champions.

One Trojan in particular has had a vital influence on Shelton. As an entering sophomore at SC (he attended junior college for a year), Ernie came under the influence of Parry O'Brien, then on his way to becoming the shot-put world record holder. Where coach Jess Mortensen and the Trojans as a whole contributed to Shelton's burning desire to win, O'Brien passed on his enthusiasm for work and his belief in concentration. By demonstration, Parry convinced Shelton that to be the world's best required something more than usual training procedures and that ordinary efforts are not enough.

Like O'Brien, though not to the same degree, Shelton tries to concentrate on his goal. The familiar objects he sees each day are mentally cataloged in their relation to 'T'. Before a meet Ernie concentrates on his objective, right up to the period following his warmup and preceding the first jump, when Ernie gets off to himself and thinks about jumping.

The result of all this work and concentration, the Shelton form, is difficult to describe, mostly because Ernie hasn't yet stabilized his style. That is not to say his form isn't consistent. It merely means that as the national champion changes through aging, development, and thought, his style changes accordingly.

Fifteen years ago, at the age of seven, Ernie was a scissors jumper. He and older brother Warren (now a 6-5½ jumper at SC) started to jump scissors simply because they knew no other way. Their backyard at Chanute, Kansas, was the scene and the brothers hadn't the slightest idea that others jumped elsewhere.

After the family moved to California in 1943, Warren began jumping in junior high and rekindled Ernie's interest. He scissored 4-8 in elementary school and did 5-4 in junior high. By the time he cleared 6' in the tenth grade, Ernie was developing into a fine western roller. He discussed the great jumpers of the past, and, realizing the importance of scientific technique, developed his western roll to near perfection.

But Ernie was dissatisfied with his improvement, even though he was doing 6-2 in his junior year. He realized that superiority of the straddle style and switched to it, but not without compunctions. An artist at heart (he's an art major), Shelton was discouraged by the flailing, convulsive

jumping of many contemporary straddle jumpers. He had never seen Steer's smooth form and wasn't to see movies of the legendary record holder until 1953.

Inches were the important thing, though, so Shelton began experimenting with the straddle. He's still experimenting, or at least changing.

From the start, his straddle inherited the relaxed quality of his western, or, in another sense, he didn't anticipate the layout by twisting his body markedly and prematurely toward the crossbar as many straddle jumpers do.

He utilized the almost straight leg kick he had used before. Soon he learned that the most practical way to convert forward motion into upward motion stems from lowering the body to a near crouch during the last stride, which is lengthened.

The take-off foot is planted heel first. As the body, which is inclined considerably to the rear at this point, moves forward it is rocked up and over the take-off foot while the lead leg is swung powerfully and nearly straight to assist in the lift.

ONE of the country's outstanding track authorities, Bert Nelson publishes that superb track paper, *Track & Field News*, in Los Altos, Calif. At the U. of California, he ran the half-mile on the frosh team and served as sports editor of the campus paper. Went into the newspaper business after the war, and founded *Track & Field News* (with brother Corner) in 1948. His first article for "Scholastic Coach"—a magnificent treatise on Parry O'Brien—appeared last month. And you can bet your last baton that he'll be in our regular line-up next year.

Most characteristic of Shelton's jump is the one rhythmic movement from take-off to bar clearance to landing, a feature which seemed to develop from his ability to relax. It also freed him, until 1954, from last leg clearance troubles which plagued nearly all straddlers.

As Ernie improved his new form and bettered his marks, through 6-4¼ in 1950, 6-5½ in his senior year in high school, 6-7¼ in a post-season exhibition at Valley Junior College, to 6-9½ in his first year at SC, he developed the style into a pattern.

His first year of greatness, 1953, saw little or no change in form as his jumping continually improved. Films do show, however, a decidedly more powerful take-off from meet to meet and a more vigorous use of the lead leg.

During the 1953 season, Ernie was

almost certain of clearing any height he could get his first leg over. When he missed, invariably it was the inside of the thigh of the lead leg that displaced the bar. This was probably due to his attempt to get his head and shoulders over the bar well before the lower part of his body.

At any rate, in 1954, Shelton found he could correct this lead leg trouble by approaching the crossbar from a steeper angle, about 55° off.

This change resulted in several things. His tendency to lean into the bar during the take-off was somewhat lessened. (He realized that some lean was necessary to perform a rolling layout over the bar.)

Also, he was forced to take off slightly farther away from the bar. He seemed to get more power in his take-off and often was able to clear 6-10 by what appeared to be three inches. His head, trunk, and hips cleared the bar more nearly as a unit now. The roll over the bar beginning with the head and shoulders was much less distinct.

However, these acceptable results were outweighed by difficulty in controlling the last leg during clearance. He now plans to remedy this one remaining bad feature by shifting his approach to a shallower angle of about 45° and to use a form very closely following that of 1953, when he was using a run of about 40°.

Much stronger now than in 1953, Ernie feels he can get his lead leg over greater heights, and since last leg clearance will again be no problem he sees even better results.

Ernie starts his approach about 40 feet away, pacing off the distance. He doesn't believe in check marks, feeling they take away from his concentration as he approaches the bar. The run-up is on the slow side, the speed increasing with the last three strides.

The Shelton form of 1953, and scheduled for 1955, involves a foot plant that is at right angles to the bar. This foot plant, and a parallel kick, compensates for the turn-in and lean to the left as the jump is commenced.

Ernie kicks along the bar and hunches his left shoulder, thus pulling or rocking the center of gravity over the take-off foot and ensuring a relatively good vertical take-off.

Before his hips have reached their maximum height, Shelton's head, which closely follows the right foot in leading the jump, is ready to start down. As the pendulum action of the kicking leg is still pulling the hips up, the head and shoulders continue to rotate downward.

The left arm is carried to the side, not being allowed to get between the body and the bar, and thus a very close clearance is possible. Over the bar, Shelton's head and shoulders are below the level of the hips and trailing leg.

As he completes the roll over the bar, the left or trailing leg is first straightened. Then the toes of the left foot are turned up quickly and the last leg clearance is completed.

This form of Shelton's is a fine example of what is known as the straddle. Ernie's lean-in, right angle foot plant, strong pendulum kick with a semi-straight right leg parallel to the bar, and roll-over clearance are standard elements of a form regarded by many as the most practical. Ernie has, of course, developed a form with certain variations most suited to his assets and limitations.

Shelton, with remarkable timing and coordination, has been able to attain a high center of gravity and still wrap himself around the bar in such a way as to ensure graceful, certain clearance. To obtain this form he has sacrificed speed and power in his run-up and take-off.

FREE CATALOGS

ALL items below are available to schoolmen as stipulated in copy. When writing direct to distributor, it's advisable to use official school stationery.

- 1955 General Athletic Catalog covers complete Champion Knitwear Co. line, featuring exclusive "Gray" line for athletic wear and complete listing of phys. ed uniforms. *Camper's Year Brochure* also available. See "Champion" listing in master coupon on last page.

- 1955 Louisville Slugger Yearbook and Grand Slam Golf Club catalogs, featuring Hillerich & Bradsby lines of bats (baseball and softball) and golf clubs, are available in quantity by checking "Hillerich & Bradsby" listing in master coupon on last page.

- Three new MacGregor Co. Catalogs are now available: "1955 Spring and Summer Sports Equipment," "1955 Fall and Winter Sports Equipment," and "1955 Golf and Tennis Equipment." First two are sent to all schools and colleges, latter is issued annually to all MacGregor distributors.

- Telescopic Gym Seats and Basketball Backstops, by Fred Medart Products, are illustrated and described in an attractive catalog. Check "Medart" listing in master coupon on last page.

- Seamless Athletic Goods Catalog details complete line of rubber-covered balls, bladders, tape, plates, bathing caps and accessories. Check "Seamless" listing in master coupon.

- 1955 Spring and Summer Catalog of A. G. Spalding & Bros. features baseball, golf, tennis, softball, and volleyball. Check "Spalding" listing in master coupon on last page.

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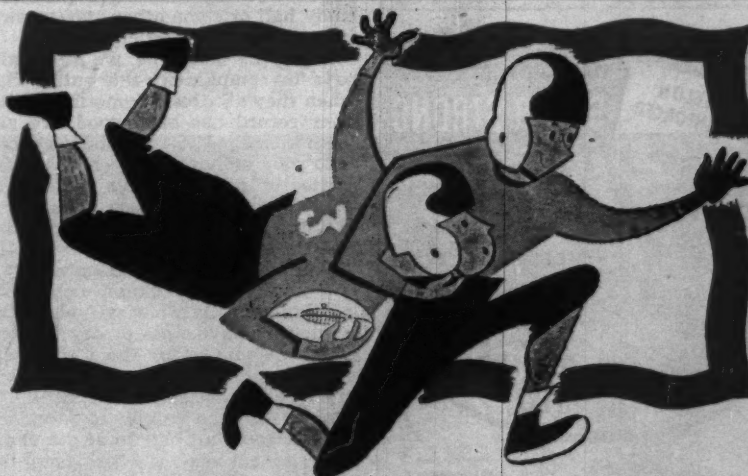
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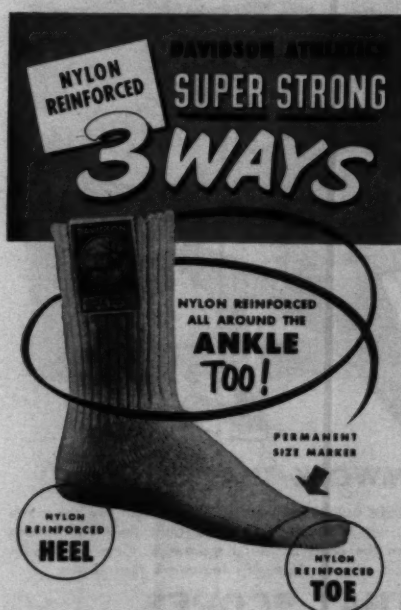
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WOOLEN MILLS, INC.
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Problems in Phys Ed Classes

(Continued from page 50)

problem is to offer a diversified program that will have some appeal to every student. If after this the boy is still reluctant to conform, it may help to have an informal friendly chat to try to discover the reason for his antipathy.

Some boys are shy about dressing or showering together, and it's sometimes possible to break down this attitude by making special provisions for them to shower a few minutes before the rest of the class or to dress by themselves. Often these boys will join the regular group in a few days.

The irregular strippers, more often than not, are less proficient in physical education than the rest of the class. They should be complimented for their small successes and given a feeling of belonging to the group. They may be used to choose squads or act as captain of a team so that they feel responsible for being active participants.

Non-stripping seem to have an accumulative effect on the average class. If unchecked, it invariably spreads to other members of the group and can seriously handicap the most carefully organized program. For this reason, it is preferable to have those not dressing report to a study hall or some other station away from the active participants.

Along the same line, we find that it pays to compliment the entire class when they all dress. Sometimes, when their record has been good, we give them a free period in which to choose their own activity. It often becomes a matter of pride to have more strippers than other classes. This social pressure may often decide a borderline case.

The lost or misplaced gym suit is one of the most common excuses for missing gym. Or a boy will claim that he doesn't have time to dry his outfit after washing it for the weekly suit check.

We've combatted this by letting the student use the supply of laundered uniforms we fall heir to at the end of every school year. It's surprising how they'll stop failing to bring their own suits when they realize we can outfit them in an emergency.

We also use a demerit system. Whenever a boy has four unexcused suit cuts, his letter grade is dropped one point. This may be criticised as a negative approach to the problem, but it has accomplished better results for us than any other scheme. We balance this by giving bonus points for those with perfect records.

In spite of every type of incentive, we still have a few incorrigibles who refuse to like gym or anything concerned with it. Even in schools where physical education is compulsory for graduation, they still won't participate. In this case, a strong adminis-

trative policy is necessary. You can be sure these boys aren't doing anything in any class and are merely waiting until they can meet the minimum age requirement before dropping out of school.

THE MODIFIED STUDENTS

The problem of supplying an adequate program for both the defective and the normal individual concerns almost every school. We have remedial classes in reading, mathematics, and other academic subjects, and should also consider how to improve the health of the physically handicapped.

Most physical educators believe that the ideal is to place the modified students in a special class according to their needs. In practice this is very difficult to do because of lack of personnel, space, and flexibility of the curriculum. Too many schools are giving lip service to the ideal and are excusing these students from any physical education or are merely using them as towel or equipment managers.

The doctor's recommendation is all important in giving help to these modified students. Usually the physician is sincerely interested in working with the school and will make his recommendations accordingly. Too often, however, a note is sent to the school, completely excusing the boy from all activity without any consideration as to how the school may aid in physical rehabilitation.

NO INDIVIDUAL CLASSES

Our particular curricular set-up doesn't allow us to have individual classes for corrective groups. We're obliged to take care of them along with our regular classes. To aid our judgment in including them in regular class work, we send the doctor a school form which asks him to describe the boy's condition and which outlines the activities given in our regular class work.

We ask the doctor to check the items which might prove detrimental to the student and ask for suggestions on exercises which might help the boy. Unless absolute rest is required, in which case cots are available, we require the student to dress for gym with the regular class. We then try to work out a program for him in line with the recommendations of the physician.

Very often this will have the student taking exercises by himself, punching the bag, or perhaps only playing horseshoes. I believe this participation adds to the social adjustment of the student, which is one of the main objectives of physical education.

The average person isn't concerned with the significance of the testing program. The popular conception seems to be that physical education is primarily a big muscle activity where results are measured in terms of how high a participant can jump or how far he can throw a ball.

Actually, measurement includes the fields of body mechanics, strength, physical ability, physical fitness, health attitudes and knowledge, and levels of aspiration.

The administration and interpretation of these tests has become more refined with the use of scientific measuring devices. Research involving statistical data and methods in the last few years has kept pace with any field in education and has done much to establish physical education as more than just bodily exercise.

TESTING IN PHYSICAL ED

Tests are usually given in the P.E. program for one or more of the following reasons:

1. To grade more objectively.
2. To classify students as to ability.
3. As a diagnosis of physical weaknesses.
4. To motivate students toward higher attainment.
5. To obtain an index of physical fitness.
6. Improve over-all instruction.
7. Show progress of program.

Many testing programs were set up in high schools during the last war. Some instructors have improved and refined these tests and are using them to promote fitness, to measure certain intangibles which could not be interpreted before, and to give more objectivity in grading.

Physical ability consists of such components as agility, speed, power, endurance, balance, and coordination. Batteries of tests which measure these factors are used extensively in the field. Decathlons, pentathlons, and other grouped events are utilized in many schools in an effort to improve the programs.

The problem is not in finding tests for this purpose, but in the choice of those which are objective, valid, reliable, and can be administered with a minimum of trouble.

Cardio-vascular tests of circulatory fitness are given in some schools by the coach or school nurse. Some of these tests can be administered without too much trouble or training and are valuable as an indication of physical fitness or as a diagnostic device for further reference to the family physician.

Anthropometric or body mechanics tests aren't too common in the average program. Most of these are merely cursory subjective appraisals aimed at referring the most apparent cases to the doctor or placing them in a remedial class. Few schools use the more objective procedures involving silhouette scales, anterior-posterior photographs, or devices such as a comformateur.

It would seem that this is a problem we coaches and physical edu-

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of a smart Buyer *

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✓	Game Stockings	Spanjian #HF-20 Nylon-Durene	A perfect match for above.
✓	Practice Pants	Spanjian #806 Nylon-Cotton Knit	None better! This is money in the bank!
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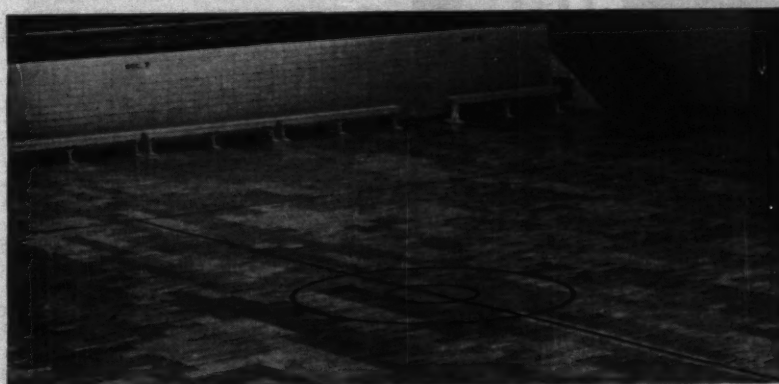
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cators should be more concerned with, especially since we're subjected to the criticism that the very sports we emphasize as healthy and body-building are conducive to the development of common postural defects.

Written tests are used to supplement the programs at a number of schools. Some coaches test students on rules, knowledge, and techniques of different team games and activities. Often the instructor is responsible for teaching health education either incidentally in the P.E. class or as a separate course. Tests involving health knowledge and behavior, first aid, and life saving are given frequently.

Sports technique tests are given by coaches to measure and improve the different skills involved in the execution of a game or sport. Among these are the following: basketball throw or dribble, basketball goal throw, volleyball serve, tennis serve, soccer and speedball skills, golf drive and put, baseball throw for distance and accuracy, football throw and punt.

A number of these tests have fairly high criteria of validity and reliability. Others show possibilities of be-

ing valuable to the coach for motivation and diagnosis.

One of the problems in physical education measurement is appraising such activities as wrestling, boxing, and tumbling. As far as I know, there are no accurate scales for judging these. It's possible to break them down into fundamental movements, but grading is still subjective. This, of course, is also true in academic courses where oral reports and recitations are graded subjectively.

Most of the tests mentioned give an indication of a skill which is already developed. One of the dreams of every coach is to devise a measurement which indicates innate potentiality toward a specific skill. We already have tests which show motor educability indicating a capacity for a general ability.

What an economy in coaching procedure it would be to have a yardstick which could predict success in a particular sport and show which individuals could be developed to maximum performance! Many attempts have been made toward this dream, but it still remains a challenge to the research-minded coach or physical educator.

Improved Football Officiating

(Continued from page 42)

of togetherness, cooperation, and confidence.

4. Use the language properly. There's nothing shameful about speaking English the way it's intended to be spoken. Profanity has no place in the language and serves no purpose other than antagonizing people and degrading the user.

5. Be professional in your relationships with players and coaches. Remember you're not acting in the capacity of a coach. Don't: assist either the offensive or defensive team by helping with signal calling or pointing out weaknesses; use your position to scout for a friend who will play one of the teams later; or tell either coach of strengths and weaknesses noticed in the other team.

6. Be alert, kind but firm, cover your territory, move fast, get the ball back in a hurry, make your passes soft and accurate, mark the position of the ball, be positive but never rude, be courteous but not ingratiating, be friendly but avoid "kidding" on the field.

FOLLOWING THE GAME

1. When the game is over, your duties as an official are completed (except for returning the game ball).

It isn't necessary to commiserate with the loser or congratulate the winner; discuss the if's of the game with either coach; run one official down as soon as he has left the room; or to discuss the game with any bystanders. You must be particularly careful not to criticize any decisions

made in the conduct of the game. Your locker room demeanor should reflect a quiet-hurry-to-get-home-my-business-is-finished attitude

2. On the way home you might ask yourself these questions:

(a) Did I arrive at the game in plenty of time?

(b) Did I know my rules as well as I should?

(c) How were my mechanics?

(d) Did I carry out my duties properly; was I helpful, energetic, conscientious?

(e) Was I professional in my attitude toward the players and coaches?

(f) Was I in good condition?

(g) Was my uniform a credit to the profession

(h) Was I a fully cooperating member of the team of officials?

(i) Did I call my fouls as I saw them?

(j) Did I make at least one boy a better citizen through my own efforts and example?

(k) Did I conduct myself as a gentlemen in every situation?

"Believing that the main objective of education is service to mankind through the development of the whole individual, members of the teaching profession accept the responsibility of . . . maintaining a constructive and cordial attitude, guiding those under his direction, cooperating with his associates . . . He helps to improve the status of the profession by developing high standards. He is aware of the values of professional organization and works for their realization."

"Here Below"

(Continued from page 5)

"Hey, would you mind throwing over a ball." A ball promptly came whirling through the air, to be caught by one of the high school players.

Terry looked out at the coaches. "I wonder if this constitutes a try-out," he chirped.

A KUDO FOR THE AAU

IN this day and age when prejudice and intolerance are world issues, it's refreshing to discover that our Amateur Athletic Union has finally come of age. In awarding the James E. Sullivan Trophy to Mal Whitfield as the outstanding amateur athlete of 1954, the AAU took a 27-foot broad jump in the direction of honesty and decency.

How come? Because Mal is the first Negro ever to be so signally honored. Hitherto the AAU has been extremely suspect in its voting. When such marvelous athletes as Harrison Dillard, Jesse Owens, John Woodruff, Ralph Metcalfe, and Andy Stanfield have been passed up year after year, something obviously was wrong.

If Negroes were considered good enough to wear the red, white, and blue in Olympic competition, they most certainly were entitled to unfettered consideration for the Sullivan Trophy.

The AAU has now burnished its escutcheon. And it isn't a small thing. With the eyes of an uneasy world focussed on our every move, every step we take in a democratic direction carries deep significance.

Hitting in Baseball

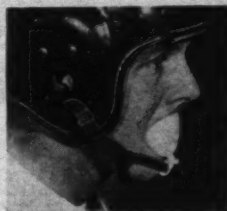
(Continued from page 14)

3. Hands above the waist.
4. Arms away from the body, back in the proper hitting zone.
5. Fast hand action.
6. Any kind of stance that feels comfortable.
7. And then the all-important split-second action with the bat held back waiting to hit after the stride . . . almost fully against the stride.

With some natural ability and the proper application of these fundamentals, you can make yourself a good hitter. Yes, it takes a great deal of skill to reach the major leagues, but it takes more than just skill to reach the top of the big leagues. It takes good physical condition, good endurance, constant practice, confidence, and above all, a firm determination to become a champion and remain a champion.

ELIMINATE ALL Mouth-Teeth-Lip Injuries

- A comfortable surgical rubber Mouth Guard that affords 100% protection, internally and externally.



Mill-Mont Mouthguards protected 30,000 sets of football players' teeth in 1954 with NOT ONE dental injury, NOT ONE lip laceration!

NO GAGGING OR DISCOMFORT. Has a hole like a whistle. Breathe through it, speak through it. No bulky cumbersome denture to gag on.

NO DANGER OF SWALLOWING. Ejects itself automatically when player is knocked out.

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- Two improved Models that fit Military and Conventional types of chin straps. Used by coaches everywhere.

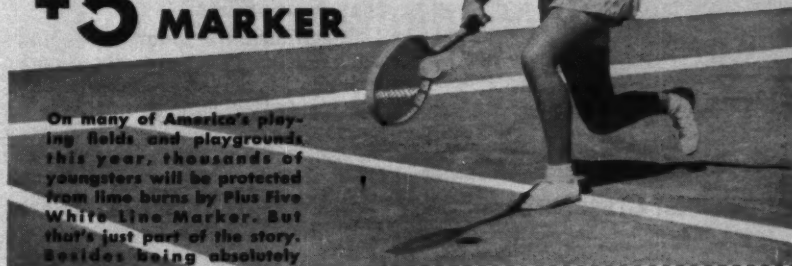
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THIS COURT IS MARKED WITH +5 WHITE LINE MARKER



On many of America's playing fields and playgrounds this year, thousands of youngsters will be protected from lime burns by Plus Five White Line Marker. But that's just part of the story. Besides being absolutely safe, this sparkling white powdered marble lasts longer, requires less marking, and costs no more to use than ordinary marking.

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Please send me a sample of Plus Five and the name and address of the nearest distributor.

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Address _____
City _____ State _____



CALCIUM PRODUCTS DIVISION
THE GEORGIA MARBLE COMPANY — TATE, GEORGIA



**"You may as well
have the best . . .**

Phy Ed Instructors everywhere say, "Jim Flex Mats offer complete, safe protection." New Vylan Mats are washable, sanitary, dustproof—tested and approved. Duck texture, appearance and "feel." Stands hard wear. All hand tufted with wax tufting twine. Genuine Jim Flex felt filling. Also regular Gym Mat, light duck covering. Wall Mats, also Naugahyde plastic mats.

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FOR ALL SEASONAL SPORTS**



- ★ Force Feed — Instant Shutoff — 100 lbs. capacity.
- ★ Easy to fill and operate.
- ★ No Brushes or Screens to clog.
- SAVES TIME AND MATERIAL**

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H. & R. MFG. CO., LOS ANGELES 34, CALIF.

Dowmetal Crossbars

These triangular, hollow bars are
truest, finest, longest-lasting
WEIGHT AND PRICE

12' (jumping)	2.0 lbs.	\$5.75
14' (jumping)	2.3 lbs.	6.50
16' (vaulting)	2.6 lbs.	7.25
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50¢ per bar higher west of Rockies

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Only \$72 per set (F.O.B. Midland)

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1115 Jerome St., Midland, Mich.

Strategy in the Mile Relay

By **BUD WINTER**, San Jose State Track Coach

WHILE most people are fully aware of the strategy that underlies football, basketball, and baseball, few of them realize the vital role it plays in track and field.

Modern track coaches employ detailed scout reports on all their opponents. Runners are much like horses in many respects. Some are good mudders, other reach peak performance on a hard track. Some run their best on hot days, others at night. Some run better in a trailing position.

Strategy is utilized in every race of 440 yards or more. Let's consider the mile relay. You can justifiably argue that four men can run only so fast, and no matter in what order they run, it will still add up to the same time. But you will see how the order of running can be extremely important.

Some men are more relaxed and run a far better race when they are in the No. 2 or No. 3 position where the pressure may not seem as great as in the No. 1 (starting) and No. 4 (anchor) positions. Some men run a curve better than others; some are better only when out in front, and so on. Knowledge of the ability of your own men thus becomes significant. There is more to strategy than that, however.

Sometimes the unorthodox pays off handsomely. Ordinarily a coach will run his second fastest man first, use his fastest man to finish up on the anchor lap, spot the slowest man second, and the third fastest in the third slot.

At the 1950 Compton Invitational, San Jose State met the famed Occidental College mile relay team which the week before at the Coliseum Relays had recorded a time of 3:10.1, the third fastest college mile relay in history. We met them because we had turned in a respectable 3:16.3 at the Modesto Relays, and also because no one else would challenge the speed-burning Oxy quartet.

In the mile relay, each man travels about 8.5 yards per second. Comparing our best times, this means that Occidental should have beaten us by 53½ yards. We had to do

something to make them run under their optimum and we had to run faster than we ever had before. Oxy was running its men in orthodox fashion.

Our fastest man was Owen Moore and we used him first. He ran a tremendous 47.1 quarter and gave a 10-yard lead to Reuben Derrick who was under instructions to sprint for the first 70 yards. This caused the Oxy No. 2 man to over-run himself in the first 220 yards and he was too tired to have much kick at the finish. Thus, Derrick held the 10-yard lead at the half-mile mark.

THIRD-FOURTH LEGS

Stu Inman, our No. 3 man, ran a good quarter, but was up against John Barnes, one of the nation's top men and a member of the 1952 Olympic team. Barnes made up eight yards on Inman, but we still held a two-yard lead at the final baton exchange.

The anchor lap paired our Don Davis against Dill Parker, Oxy's brilliant quarter-miler. Their battle kept the crowd standing and roaring for the entire final lap. We purposely matched Davis against Parker for we knew he would rise to the occasion with his fine competitive spirit.

Parker passed Davis at the first turn, but coming into the back stretch the gritty Davis took the lead again. Parker took over again at the 220 mark, but Davis spurted ahead going into the last turn. In

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For
Gymnasium Use
Also Rubber
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Mats are ¼" thick corrugated black rubber, with letters, numerals and lines of white rubber inlaid in mat. Overall size 8' x 12'.

Approved By
New York City
Board of Education

PERFO MAT & RUBBER CO., INC.
461 Fourth Ave. New York 16, N. Y.

the stretch, it was stride for stride all the way.

I wish I could say that this strategy paid off with a victory—but it barely missed. It did succeed in making Oxy run its second best relay, 3:12.9, and the Spartans ran their best in history, 3:13.3, missing the big upset by less than two strides. The point is, however, that our strategy cut the "paper" differential between the teams by nearly 50 yards.

This isn't the only strategy a coach can employ in the relay. Sometimes you can run your slowest man first, so your opponents' second fastest man (running No. 1), will be satisfied with something less than his best. For, unfortunately, many relay men run only as hard as necessary to beat their own man.

Then, your two fastest men (in this race running No. 2 and No. 4) can pick up the baton at the start of the passing zone and (in the case of the No. 2 man) hand off at the end of the passing zone. (Passing zone is 20 yards.) Thus, your two fastest men will run 460 and 450 yards, your two slowest, 420 and 430. What strategy you use depends on the knowledge of your opponents.

The same principles are involved to a lesser degree in sprint relays. Sometimes we have been lucky enough to steal a sprint relay by running our two fastest men first to get ahead of the confusion in the passing zones.

From a regular newsletter circulated to coaches by the San Jose coach.

Steady Tennis

(Continued from page 40)

that to play good tennis they must "hit the ball."

"Does this then mean 'dinking' in order to win?" I am often asked. It may or it may not, according to the situation. It isn't a matter of going from one ridiculous extreme to the other, of course, but that seems to be the attitude of players in general. A player is either "pushing" (steady) or he is "hitting the ball." Let's be steady enough to apply some strategy as well as muscle to our games.

To repeat the last sentence of the preceding paragraph: So long as you are winning better than half the points, consider that you are steady enough for that particular match.

Reprinted from the country's No. 1 tennis magazine, *World Tennis*, published and edited by Gladys M. Heldman.



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Sprint Starting

(Continued from page 20)

practice. We also observed greater penetration of the front foot, indicating greater push and subsequently greater reaction thrust. This greater reaction thrust was certified by the 6" to 8" greater spacing of the first few strides.

But these fantastic results did not necessarily mean that the average sprinter was overcoming inertia any sooner. To check this part of the sprinter's start, we conducted test #2, the 10-yard test with the usual 5 gun starts.

Results: The average sprinter covered the first 10 yards (using blocks plus "hot foot" push technique) .1 faster than in the conventional start. We also observed that the sprinter's center of gravity was 3" lower at 10 yards.

These results, however, were not accepted as conclusive proof. So the entire series of tests were repeated, this time placing the front foot 3" above the track surface (on the block).

The results were almost as astonishing as the first time. Briefly, the 60-yard final test was covered .05 faster by the average sprinter!

The boys were so amazed and delighted with the test results that they immediately requested their own personal blocks. Some of their verbal remarks were: "Like running down hill." "A scooter start." "Must keep my legs moving faster."

Incidentally, in a similar test series with my hurdler, we found a greater reduction in time—.2 of a second faster in a 60-yard race.

VERSATILE is precisely the word for John Marzucco. At Penn State College, he majored in Structural Engineering and competed in track (hurling and broad jumping). He then went to work as a design engineer and later as a turbine and propulsion engineer. The call of track was too strong to ignore, however, and he gave up full-time engineering to coach track at Cheltenham H.S., where he turned out a state championship team in 1942. He then moved up to Lower Merion H.S., where he's been developing top-flight teams ever since. On the side, he's been putting his engineering talents to use in developing superior track equipment (hurdles, standards, starting blocks) under the aegis of the Aluminum Athletic Equipment Co.

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COACHING SCHOOL DIRECTORY

The following listings offer an up-to-the-minute picture of the Coaching School scene. Unless otherwise indicated, the directors may be reached at the address given for their school. Next month Scholastic Coach will present a larger, more detailed Directory.

ADELPHI COLLEGE—Garden City, Long Island, N. Y. Aug. 8-10. Directors, George Faherty (Adelphi College) and John Sipos, Huntington, Long Island, N. Y. Course: Basketball. Staff: To be announced. Tuition: \$15 (includes room, notes).

ALABAMA UNIV.—Tuscaloosa, Ala. Aug. 8-11. Director, H. G. Crisp. Courses: Football, Basketball, Track. Staff: J. B. Whitworth & Varsity Staff, others. Tuition: Free.

ALL-AMERICAN CLINIC—Bemidji, Minn. June 20-23. Directors, K. E. Wilson and H. J. Erickson. Courses: Football, Basketball, 8-Man Football, Training. Staff: Terry Brennan, Ozzie Cowles, John Kundla, Lou Bogan, others. Tuition: \$15. See adv. on page 69.

CALIFORNIA POLY—San Luis Obispo, Cal. Aug. 8-19. Director, Al R. Arps, 7022 DeCelle Pl., Van Nuys, Cal. Courses: All Sports. Staff: Roy Hughes, Bill Archer, Forrest Twogood, Payton Jordan, Pinky Greene, George Nissen, Kickapoo Logan, others. Tuition: 4 quarter units for \$20, plus housing \$10, meals \$2.45 daily.

COLBY COLLEGE—Waterville, Me. June 15-17. Director, Ellsworth W. Millett. Courses: Football, Basketball, Baseball. Staff: Wally Butts, John Coombs, others. Tuition: \$22.50.

COLORADO COACHES ASSN.—Denver, Colo. Aug. 17-19. Director, N. C. Morris, 1532 Madison St., Denver 6, Colo. Courses: Football, Basketball. Staff: Ivy Williamson, Hank Iba. Tuition: \$10.

COLORADO UNIV.—Boulder, Colo. June 20-25. Director, Harry G. Carlson. Courses: Football, Basketball, Track, Baseball, Training. Staff: Red Sanders, Dallas Ward, John Wooden, Bebe Lee, Frank Potts, Frank Prentup, John Rockwell. Tuition: \$10. See adv. on page 71.

CONCORDIA COLLEGE—Moorhead, Minn. Aug. 8-10. Director, J. M. Christiansen. Courses: Basketball, Football, 6- and 8-Man Football. Staff: Adolph Rupp, Don Faurot, others. Tuition: \$10.

CONNECTICUT UNIV.—Storrs, Conn. Aug. 23-25. Director, J. Orlean Christian. Courses: Football, Basketball. Staff: Bill Murray, Dan Jessee, Ken Loeffler, others. Tuition: Free to CIAC members; \$10 others.

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- BEN CARNEVALE, Navy
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AL NEGRATTI. Basketball Coach at Cleveland High School, Portland, Ore.

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EASTERN COACHING CLINICS—Cornwall-on-the-Hudson, N. Y. July 14-16, July 28-30, Aug. 11-13, Aug. 18-20. Director, Clair Bee, New York Military Academy, Cornwall-on-the-Hudson, N. Y. Courses: Football, Basketball, Baseball, Track, Swimming, Training. Staff: See advertisement on page 67. Tuition: \$30 three days, \$20 two days, \$10 one day (includes meals). See adv. on page 67.

EASTERN PENNA. COACHES ASSN.—East Stroudsburg, Pa. June 20-23. Director, Marty Baldwin, Box 205, East Stroudsburg, Pa. Courses: Football, Basketball. Staff: Murray Warmath, Earl Edwards, Paul Amen, Bob Davies, others. Tuition: \$40 (includes room, board, free golf). See adv. on page 68.

FLORIDA A. & M. UNIV.—Tallahassee, Fla. June 13-18. Director, Jake Gaither. Courses: Football, Basketball. Staff: Woody Hayes, Chuck Mather, Bud Kennedy, Perry Moss, Tom Nugent, Frank Broyles, John Eibner, Mac Cara, Sam Langford. Tuition: \$10 plus \$3.50 for room.

FLORIDA COACHING SCHOOL—Gainesville, Fla. Aug. 8-11. Director, I. W. Brant, P. O. Box 426, Jacksonville Beach, Fla. Courses: Football, Basketball, Track. Staff: Gomer Jones, Frank Broyles, U. of Florida Staff. Tuition: Free to State Assn. members, \$15 others.

FLORIDA STATE UNIV.—Tallahassee, Fla. June 9-11. Director, Tom Nugent. Course: Football. Staff: Otto Graham, Doak Walker, Charlie Trippi, Lou Groza, Bones Taylor, others. Tuition: \$15 (includes room). See adv. on page 69.

GEORGIA COACHES ASSN.—Atlanta, Ga. Aug. 1-5. Director, Dwight Keith, 310 Buckhead Ave. N.E., Atlanta, Ga. Courses: Football, Basketball, Training. Staff: Blanton Collier, Ray Graves, Joel Eaves, Sterling Dupree, Ralph Carlisle, others. Tuition: \$5 members, \$10 others.

HAWAII UNIV.—HONOLULU H. S.—Honolulu, Hawaii. Aug. 1-7. Director, James O. Mitchell, Farrington, H. S., Honolulu. Course: Football. Staff: Henry Vasconcellos, William Wise, others. Tuition: Free.

IDAHO COACHES ASSN.—Sun Valley, Ida. Aug. 8-12. Director, Jerry Dellinger, Jerome (Ida.) H. S. Courses: Football, Basketball, Track, Training, Boxing, Rules. Staff: Terry Brennan, Hank Iba, Dubby Holt, Packy Boyle, M. F. Sprunger. Tuition: \$10 members, \$15 others. See adv. on page 69.

INDIANA BASKETBALL—Kokomo, Ind. Aug. 4-6. Director, Cliff Wells, Tulane Univ., New Orleans, La. Staff: To be announced. Tuition: \$10.

KANSAS COACHING SCHOOL—Wichita, Kans. Aug. 22-25. Director, E. A. Thomas, 1300 Topeka Blvd., Topeka, Kans. Courses: Football, Basketball, 6-Man Football, Training. Staff: Woody Woodard, others. Tuition, \$10.

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LOUISIANA COACHES ASSN. — Baton Rouge, La. (Football, Aug. 3-5); Shreveport, La. (Basketball, June 8-10). Director, Woody Turner, 151 Charles St., Shreveport, La. Football Staff: Rex Enright, Woody Woodard, L.S.U. Staff. Basketball Staff: To be announced. Tuition: \$5.

MARYLAND UNIV.—College Park, Md. June 16-18. Director, Bill Dovell, Box 295, College Park, Md. Courses: Football, Basketball, Training. Staff: Jim Tatum & Varsity Staff, Bud Milliken, Duke Wyre. Tuition: \$15 h. s. coaches, \$25 college coaches. See adv. on page 68.

MICHIGAN ATHLETIC ASSN. (Upper Peninsula)—Marquette, Mich. Aug. 4-6. Director, C. V. Money. Courses: Football, Basketball, Track. Staff: Forrest Evashevski, Fordy Anderson, Don Canham. Tuition: \$10 (includes room and board).

MICHIGAN ATHLETIC ASSN. (Lower Peninsula)—Mt. Pleasant, Mich. Aug. 15-19. Director, Dan Rose. Courses: Football, Basketball, Track. Staff: Murray Warmath, Fordy Anderson, Don Canham. Tuition: 20 (includes room and board).

MICHIGAN UNIV.—Ann Arbor, Mich. June 20-July 1. Supervisor, Howard C. Leibe. Courses: Football, Basketball, Track, Training. Staff: Bennie Oosterbaan, Bill Perigo, Don Canham, Jim Hunt. Tuition: \$20 resident, \$30 others.

MONTANA STATE COLLEGE—Bozeman, Mont. Aug. 15-19. Director, John Breeden. Courses: Football, Basketball, 6-Man Football, Track, Wrestling. Staff: To be announced.

NEVADA UNIV.—Reno, Nev. June 20-25. Director, Art Broten. Courses: Football, Basketball (two semester credits). Staff: Red Sanders, Hank Iba. Tuition: \$20 state residents, \$24 others.

NEW MEXICO COACHES—Albuquerque, N. M. Aug. 7-13. Director, Doc Ledbetter, 1213 Princeton Dr. S.E., Albuquerque, N. M. Courses: Football, Basketball, Training. Staff: Woody Woodard, Phil Dickens, Phog Allen, Doyle Parrack, Ed Pillings. Tuition: \$10 members, \$15 others. See adv. on page 71.

NEW YORK STATE—Clinton, N. Y. Aug. 22-25. Director, Philip J. Hammes, Proctor H. S., Utica, N. Y. Courses: Football, Basketball, Baseball, Soccer, Wrestling, Training. Staff: To be announced. See adv. on page 69.

NORTH DAKOTA STATE COLLEGE—Fargo, N. D. April 15-16. Director, Del Anderson. Course: Football. Staff: Varsity Staff. Tuition: Free.

OHIO FOOTBALL—Mansfield, O. Aug. 7-12. Director, William E. Peterson, 924 Curtis Dr., Mansfield, O. Staff: Blanton Collier, Eddie Erdelatz, Woody Hayes, Paul Dietzel, others. Tuition: \$10 members OHSAA, \$15 others.

OKLAHOMA COACHES ASSN.—Oklahoma City, Okla. Aug. 7-11. Director, Clarence Breithaupt, 3420 N.W. 19th St., Oklahoma City. Courses: Football, Basketball. Staff: To be announced. Tuition: \$10.

11th ANNUAL

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The Trampolin excels in pure enjoyment because of the ex-

hilarating sensation of soaring through the air with ease, grace and safety.

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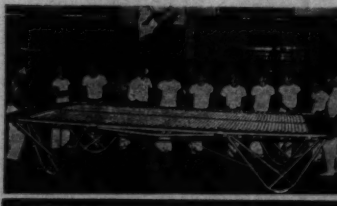
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OREGON UNIV.—Eugene, Ore. June 13-18.

Director, A. A. Esslinger. Courses: Football, Basketball, Baseball, Track, Wrestling, Training. Staff: Woody Hayes, Hank Iba, Don Kirsch, Bill Bowerman, Bill Hammer, Kickapoo Logan, others. Tuition: \$14. See adv. on page 68.

PENNA. STATE UNIV.—University Park,

Pa. Director of Summer Sessions, Room 103-D, Burrowes Bldg. June 13-July 1, July 5-Aug. 13, Aug. 15-Sept. 2. Courses: All Phases of Coaching, Physical Education, Camping, Recreation. Staff: Regular University Faculty. Tuition: \$11 per credit. See adv. on page 67.

SHERIDAN WRESTLING CLINIC—Bethlehem,

Pa. Aug. 7-13, 14-20, 21-27. Director, Gerald Leeman, Lehigh Univ., Bethlehem, Pa. Staff: Gerald Leeman, Billy Sheridan, others. Tuition: \$30 (includes room and board).

SOUTH CAROLINA COACHES ASSN.—Col-

lumbia, S. C. July 31-Aug. 5. Director, Harry Hedgepath, 1623 Harrington St., Newberry, S. C. Courses: Football, Basketball. Staff: Red Sanders, Andy Gustafson, Branch McCracken, others. Tuition: \$7.50 members, \$15 others.

SOUTH CENTRAL PENNA. COACHES

ASSN.—Millersville, Pa. April 23. Registration to Paul Wenrich, Manheim Township H.S., Neffsville, Pa. Course: Football. Staff: Frank Reagan, Woody Sponaugle, George Datchmer. Tuition: \$3.50 (includes lunch).

SOUTH DAKOTA ATHLETIC ASSN.—Huron,

S. D. Aug. 16-19. Director, R. M. Walseth, P. O. Box 203, Pierre, S. D. Courses: Football, Basketball, Track. Staff: Bucky O'Connor, others. Tuition: Free.

TENNESSEE ATHLETIC ASSN.—Cookeville

Tenn. July 27-30. Director, P. V. Overall, Tennessee Tech, Cookeville. Courses: Football, Basketball, Baseball, Track. Staff: Bowden Wyatt, Jess Neely, Bob Polk, others. Tuition: Free.

UPSTATE NEW YORK BASKETBALL—Delhi,

N. Y. June 29-July 1. Director, Edward J. Shalkey, Delaware Academy Delhi. Staff: Buster Sheary, John Egli, Ed McCluskey. Tuition: \$15 for one man, \$25 for two from same school. See adv. on page 71.

UTAH STATE COLLEGE—Logan, Utah. June

6-10. Write Athletic Director or Summer School Director. Courses: Football, Basketball, Baseball, Track, Training. Staff: Ivy Williamson, Ozzie Cowles, others. Tuition: \$10. See adv. on page 69.

VIRGINIA STATE COLLEGE—Petersburg,

Va. June 20-24. Director, W. W. Lawson. Courses: Football, Basketball. Staff: Bill Murray, Adolph Rupp, Doyt Perry. Tuition: \$15.

WASHINGTON COACHES ASSN. — Spokane, Wash. Aug. 22-26. Director, A. J. Lindquist, 3215 E. Mercer, Seattle, Wash. Courses: Football, Basketball, Track, Baseball, Training. Staff: Jess Neely, Pete Newell, Jack Mooberry, Bill Cramer, others. Tuition: \$1 per day for room, \$4.50 per day for board.

WEST. ILLINOIS ST. COLL.-ILLINOIS ST. NORMAL U.—Normal, Ill. June 14-15. Director, Howard J. Hancock, Illinois St. Normal Univ., Normal, Ill. Courses: Football, Basketball, others. Staff: To be announced. Tuition: Free.

WEST VIRGINIA UNIV. — Morgantown, W. Va. June 6-24 (Athletic Administration), June 27-July 1 (Football), July 5-9 (Basketball), July 11-15 (Track). Director, Ray O. Duncan. Staff: Murray Warmath, Art Lewis, Fred Schaus, Art Smith. Tuition: \$4 per hour credit for state residents, \$8 for others.

Coaching Schools

Not Listed

Are Invited

to Send Facts

to Assure Listing

Next Month

Upstate New York Basketball Coaching School

June 29-July 1 Delhi, N. Y.

Buster Sheary—Holy Cross
1954 N.I.T. Champions

John Egli—Penn State U.
Sliding Zone Defense Specialist
Ed McCluskey, Farrell H. S., Pa.
1954 Class A State Champs

TUITION: \$15 for one man
\$25 for two men from same school

EDWARD J. SHALKEY
Delaware Academy, Delhi, N. Y.

UNIVERSITY OF COLORADO COACHING SCHOOL

Boulder, Colo. June 20-25

STAFF

- RED SANDERS, U.C.L.A. (Football)
- DALLAS WARD, Colorado (Football)
- JOHN WOODEN, U.C.L.A. (Basketball)
- BEBE LEE, Colorado (Basketball)
- FRANK POTTS, Colorado (Track)
- FRANK PRENTUP, Colorado (Baseball)
- JOHN ROCKWELL, Colorado (Training)

TUITION: \$10

For further information, write

HARRY G. CARLSON
U. of Colorado Boulder, Colo.

NEW MEXICO Coaching School

Aug. 7-13 Albuquerque, N. M.

STAFF

- WOODY WOODARD, S.M.U. (Football)
- PHIL DICKENS, Wyoming (Football)
- PHOG ALLEN, Kansas (Basketball)
- DOYLE PARRACK, Okla. City (Basketball)
- ED PILLINGS, N. Mex. (Training)

\$10, members; \$15, others

C. H. (DOC) LEDBETTER
1213 Princeton Dr. S.E., Albuquerque, N. M.

MASTER COUPON

To obtain free literature and sample goods, carefully check items desired and mail coupon directly to Scholastic Coach, Advertising Department, 33 West 42 St., New York 36, N. Y.

Numbers in parentheses denote page on which the advertisement may be found. Please check the items personally, and to be sure of getting the types of service or information you desire, refer back to the advertisement before checking the listing.

AALCO MFG. (54)

- ☐ Catalog of Complete New Line of Basketball Backstops
- ☐ Catalog of Track Equipment
- ☐ Catalog of Gym Mats

AMERICAN PLAYGROUND DEVICE (43)

- ☐ Catalog of Gym Baskets, Basket Racks, Foot Baths, Dressing Room Equipment
- ☐ Catalog of Playground Equipment
- ☐ Catalog of Pool Equipment

AMERICAN WIRE (66)

- ☐ Folder on Locker Baskets and Uniform Hanger

AUDIO EQUIPMENT (54)

- ☐ Literature on Power Megaphone

BEACON FALLS (41)

- ☐ Catalog of Athletic Footwear

BENSON OPTICAL (48)

- ☐ Information on Safety Prescription Glasses

BIKE WEB

- (Insert, Inside Back Cover)
- ☐ Coaches and Trainers Handbook

CHAMPION KNITWEAR (45)

- ☐ 1955 Catalog of Track and Physical Ed Uniforms (See adv. for free gym suit sample offer)

COACHING SCHOOLS

Further information on

- ☐ All-American Coaching (69)
- ☐ Colorado U. (71)
- ☐ Eastern Clinics (67)
- ☐ Eastern Penna. (68)
- ☐ Florida St. U. (69)
- ☐ Idaho Coaches (69)
- ☐ Maryland U. (68)
- ☐ New Mexico (71)
- ☐ New York St. (69)
- ☐ Oregon U. (68)
- ☐ Pennsylvania St. (67)
- ☐ Upstate N. Y. (71)
- ☐ Utah St. (69)

CONNOR LUMBER (62)

- ☐ Information on Laytite Gym Floors

CORTLAND RACQUET (51)

- ☐ "Tennis Tactics" Book
- ☐ Badminton Book
- How many _____

CRAMER CHEMICAL (28)

- ☐ Information on Training Supplies and Textbooks

CROWTHER, RAE (55)

- ☐ Illustrated Brochure on Crowther Charging, Blocking and Tackling Sled

DAVIDSON WOOLEN (60)

- ☐ Information on Nylon Reinforced Athletic Socks

DAYTON RACQUET (66)

- ☐ Rules and Court Layouts for Tennis or Badminton

DUCOMMUN, M. (54)

- ☐ Catalog of Stop Watches

DUNLOP RUBBER (62)

- ☐ "How to Play Winning Tennis" by Vinnie Richards
- How many _____

FAIR PLAY (14)

- ☐ Catalog on Electric Scoreboards

FENNER-HAMILTON (70)

- ☐ Literature on Gym Master Trampoline

GENERAL ATH. PROD. (48)

- ☐ Information on Football Uniforms

SEE PAGE 72 FOR OTHER LISTINGS AND FORM FOR SIGNATURE

MASTER COUPON

(See page 71 for other listings)
(Numbers in parentheses denote page on which advertisement may be found)

GENERAL SPORTCRAFT (2)

- ☐ Official Game Rules Booklet
- ☐ Rules Booklets for Badminton, Deck Tennis, Shuffleboard, Table Tennis, Bat Tennis

GEORGIA MARBLE (63)

- ☐ Sample of "Plus Five" White Line Marker

H. & R. MFG. (64)

- ☐ Booklet on Dry Line Markers

HILLERICH & BRADSBY (25)

- ☐ Catalog of Louisville Sluggers
- ☐ Grand Slam Golf Catalog

HILLYARD CHEMICAL (31)

- ☐ Booklet, "How to Plan Your Gym for Favorite Sports Activities"
- ☐ Information on "Trophy" Gym Finish

HORN DIVISION (39)

- ☐ Catalog of Folding Gym Seats

HOUSE OF HARTER (65)

- ☐ Information on Track Award Ribbons

HUNTINGTON LABS. (22-23)

- ☐ "The Key to Gym Floor Finishing" Folder

HUSSEY MFG. (49)

- ☐ Illustrated Seating Catalog

IDEAL CABINET (55)

- ☐ Information on Holmes Folding Hurdle

JAYFRO ATH. SUPPLY (66)

- ☐ Catalog of Steel Chain Basketball Nets

JOHNSON & JOHNSON (19)

- ☐ Information on Controlled Tension Adhesive Tape

K. & P. ATHLETIC (64)

- ☐ Information on Dow-metal Crossbars and Combination High Jumping-Pole Vaulting Standards

KAHN, ARTHUR (59)

- ☐ Address of Nearest Uniform Maker

McKESSON & ROBBINS (17)

- ☐ Samples of Octafen for Athlete's foot

McLAUGHLIN-MILLARD (37)

- ☐ Color Catalog of Adirondack White Ash Baseball and Softball Bats

MAPLE FLOORING (4)

- ☐ List of Approved Floor Finishes

MEDART PRODUCTS (21)

- ☐ Catalogs on Basketball Backstops and Scoreboards
- ☐ Telescopic Gym Seats
- ☐ Locker Room Equipment
- ☐ Gymnasium Apparatus

MILL-MONT (63)

- ☐ Information on Rubber Mouth Guard

NATIONAL SPORTS (64)

- ☐ Price Circular on Jim-Flex Gym Mats

NISSEN TRAMPOLINE (47)

- ☐ Literature on Trampolines

(See adv. for offer of sample pages from new book)

OCEAN POOL (32)

- ☐ Catalog of Complete Line of Racing Trunks and Diving Boards

PENNA. ATH. PRODUCTS (33)

- ☐ Information on "Little Kid" Basketball Equipment
- ☐ Information on Full Line of Balls

PERFO MAT & RUBBER (64)

- ☐ Information on Rubber Broad Jump and Fencing Mats

PLAYTIME EQUIPMENT (51)

- ☐ Information on Galvanized AF Bleachers

RAWLINGS (3)

- ☐ Catalog of Baseball Equipment

REMINGTON ARMS (46)

- ☐ "Instructor's Manual on Operation of a Rifle Club"

RIDDELL, JOHN T.

- (Inside Front Cover)
- ☐ Booklet and Catalog, "The Story of Quality Athletic Shoe Construction"

ROBBINS FLOORING (61)

- ☐ Information on Ironbound Continuous Strip Maple Gym Floors

SAND KNITTING (65)

- ☐ Complete Catalog of Athletic Equipment

SANI-MIST (40)

- ☐ Details of Method of Athlete's Foot Prevention

SEAMLESS RUBBER (29)

- ☐ Complete Athletic Goods Catalog

SMITH TRAMPOLINES (60)

- ☐ Information on Portable All-Steel Frame Trampoline

SNYDER TANK (70)

- ☐ Information on Steel Bleachers

SPALDING (1)

- ☐ Catalog

SPANJIAN (61)

- ☐ 1955 Football Catalog

STEWART IRON (18)

- ☐ Catalog of Fences, Baseball Backstops, Wire Mesh Partitions, Railings, etc.

TRACK & FIELD EQUIP. (66)

- ☐ Catalog of 60 Items

UNIVERSAL BLEACHER (27)

- Information on
- ☐ Portable Steel Grandstands
- ☐ Portable Wood Bleachers
- ☐ Roll-A-Way Gym Stands

WILSON SPT. GOODS (15)

- ☐ Catalog

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NAME _____ POSITION _____

(Principal, coach, athletic director, physical director)

SCHOOL _____ ENROLLMENT _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

No coupon honored unless position is stated

April, 1955

There's a **BIKE**® support for every sport...

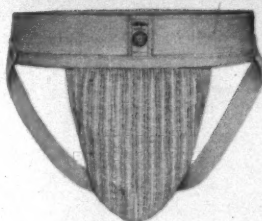
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KNIT POUCH SUPPORTERS



BIKE NO. 10 SUPPORTER

World's largest selling supporter. Made with 4T-280® Heat-Resistant rubber. Cotton and rayon knitted pouch. Heat sealed selvaged edges. 3" waistband, 1" leg straps.



BIKE ALL-NYLON SUPPORTER

Lightest, most comfortable supporter made. Made entirely of nylon and 4T-280® Heat-Resistant rubber. Dries quickly, lasts longer. 2 1/4" waistband, 1" leg straps.



BIKE NO. 59 SUPPORTER

Featherweight for swimming and light sports. Soft, knitted pouch of cotton and rayon. Heat-Resistant rubber construction. 1 1/4" waistband, 1" leg straps.



BIKE NO. 9 SUPPORTER

The only supporter with soft knitted pouch and 6" waistband for better support. Heat-Resistant rubber construction takes repeated launderings without effect. 1" leg straps.

*Trade-mark of the Bike Web Company

WOVEN POUCH SUPPORTERS



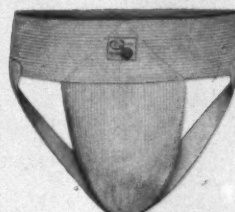
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Famous "Black Tom" specially designed for wrestlers. 5" leno-weave waistband and shaped, knitted pouch insure protection and freedom from chafing. Heat-Resistant construction.



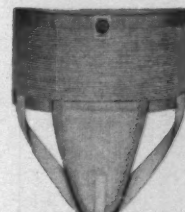
BIKE NO. 105 SUPPORTER

Popular price supporter with the Heat-Resistant construction features of more expensive models. Tailored all-elastic pouch for comfort. 3" waistband, 1" leg straps.



BIKE "STRAP" SUPPORTER

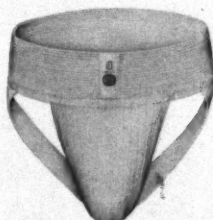
Famous STRAP features pouch that gives extra-firm support, is roomy and comfortable. Made with Heat-Resistant rubber. 3" waistband, 1" leg straps.



BIKE NO. 86 SUPPORTER

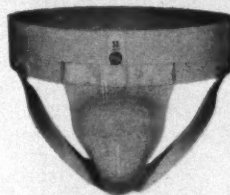
Extra protection and support. Deep, roomy all-elastic pouch is 6 inches wide. All rubber is Heat-Resistant for longer life. 6" waistband and 1" leg straps.

LITTLE LEAGUE & CUP SUPPORTERS



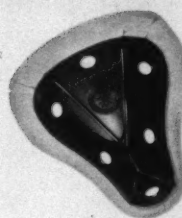
BIKE NO. LL 10 SUPPORTER

Little Leaguer's size incorporates all features of BIKE No. 10 Supporter. 4T-280 Heat-Resistant rubber insures longer life. 3" waistband—1" leg straps. Sized to fit waists 20" to 26".



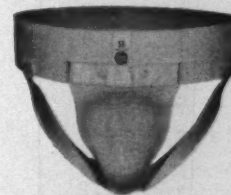
BIKE NO. LL 55 CUP SUPPORTER UNIT

Complete unit sized for Little Leaguers. Comes with LL No. 50 Cup with cushion. Soft, non-chafing pouch. Unbreakable snaps. 3" waistband, 1" leg straps. Heat-Resistant rubber. Sized 20-26, (Regular), 26-32, (Large). LL53 also available separately.



BIKE NO. 50-C CUP WITH CUSHION

Best protection possible from direct blows. Made of tough, featherweight fenite with vinyl cushion permanently attached. Use in 53 and 55 Units. Little Leaguers order LL No. 50 cup with cushion.



BIKE NO. 55 CUP SUPPORTER UNIT

Contains No. 53 Cup Supporter. Unbreakable snaps fasten pouch to roll-resistant waistband. Heat-Resistant rubber construction with 3" waistband and 1" leg straps. Comes with No. 50-C cup with permanently attached cushion. No. 53 also available separately.

Supporter Sizes: Small (26-32) Medium (32-38) Large (38-44)

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Knee Pad

Designed to absorb shock to knee and elbow. $\frac{1}{4}$ " thick foam rubber pad is enclosed between layers of a cotton elastic shell of patented construction 7" long, two-way stretch. Tapered to follow natural contours. Sized to fit knee circumference—small, 12"-15"; medium, 15"-18"; large, 18"-21". Six colors—Maroon, Light Gold, Royal Blue, Kelly Green, Black, Tan/Red or Natural.

BIKE No. 70
Knee Pad

Top-quality Knee Pad at the lowest price. $\frac{3}{8}$ " thick, 4" long, soft sponge rubber pad tapered to fit the knee elastic shell of felt and fibers. Laundry well, resists stretching. Colors: Royal Blue, Tan/Red, Light Gold, Kelly Green and Maroon. Small fits knee 12" to 15", medium 15" to 18", large 18" to 21".
ORDER FOR YOUR KNEE PAD IN NATURAL UNIT.

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Knee Brace

Heavy duty, seamless, surgical felt, steel braces covered inside and out with leather. Hinges covered with $\frac{1}{4}$ " felt padding. 12 inches long. Fits either right or left leg. Sized to fit knee circumference: small, 15"-18"; medium, 18"-21"; large, 21"-25".

BIKE No. 99
Knee Cap

Seamless construction. Withstands repeated laundering. Fashioned for better fit. Specially finished top and bottom leavers long wear. Three sizes—small, 12"-15"; medium, 15"-18"; and large, 18"-21"—sized to fit knee circumference.

More Coaches and Trainers choose **BIKE**® than any other brand!

BIKE No. 88
Anklet

An unusually soft knitted garment. Seamless construction and specially finished edges allow comfortable wear. Sized to fit ankle circumference: small, 6"-8"; medium, 8"-10"; large, 10"-12".

BIKE No. 44 and No. 45
Ankle and
Hand Wrap

No. 44 BIKER Ankle and Hand Wrap is of special herringbone weave for extra strength. Repeated wash for wrapping hands, ankles or general use. Withstands repeated launderings. 2 1/4" wide and 7 yds. long. No. 45 same as No. 44 with tabs on the end for easy tying.

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TENSOR®
Elastic Bandage

Woven with "Neo rubber" threads, and soft cotton yarn. Given greater control of desired pressure because of its elasticity. Made with heat-resistant rubber for repeated launderings. For treatment of sprains, in hot pack application. Sizes available: 2", 2 1/2", 3", 4", and 6" widths by 5 1/2 yds. stretched.

TRAINERS TAPES

BIKE Formula 87

Bike Formula 87 is the highest quality Trainers Tape obtainable. The high tensile strength of its extra sturdy back-cloth makes it ideal for taping to protect or prevent injuries during drills or actual play.



BIKE Zinc Oxide

Bike Zinc Oxide Trainers Tape is compounded with the highest grade adhesive mass and slightly lighter back-cloth than Formula 87, giving it more flexibility. Gives greater economy in taping for support and protection off the playing field.



BIKE General Purpose

Bike General Purpose Trainers Tape is a low cost utility tape for real economy where you need a lightweight tape for general use. Its flexible back-cloth lets you work fast with good, sure results. All Bike Tapes stick fast, stay on, minimize irritation, resist age.



sold only at sporting goods dealers

THE BIKE WEB COMPANY • 309 West Jackson Blvd., Chicago 6, Illinois



National Sports Festival

The Festival is a national observance that will take place in many communities throughout the United States some time during the month of May. Interested persons in their respective communities will cooperate in planning and initiating activities that call attention to the values of

sports and recreation in American life. Individuals and groups, at all age levels, will be encouraged to participate in many wholesome recreational activities appropriate to age, sex and physical condition. Community celebrations are to be educational and recreational.

PURPOSES

To stress the values of well-conducted sports and recreational activities in the community.

To encourage widespread interest and support in sound programs of recreation and physical

education.

To introduce more and more people to the fun and recreational benefits of healthy sports participation.

PROGRAM OF FESTIVAL

Each community is urged to develop its own program—according to its interests and resources as a cooperative enterprise involving many citizens and civic groups. A community may decide to carry out activities aimed at the above purposes in a celebration lasting a day, a week, or even longer during the period set

aside for the Festival. The national sponsors suggest activities of the kinds listed in this brochure, and urge that each community program be representative of best thinking of educators, recreation leaders and other forward-looking citizens.

NATIONAL SPONSORS

American Association for Health, Physical
Education and Recreation
American Institute of Park Executives
American Recreation Society
Izaak Walton League
National Golf Foundation
National Federation of State High School
Athletic Associations

National Industrial Recreation Association
National Recreation Association
Society of State Directors of Health, Physical
Education and Recreation
Sport Fishing Institute
The Athletic Institute
U.S. Junior Chamber of Commerce
U.S. Olympic Committee

NATIONAL
SPORTS
FESTIVAL
MONTH OF MAY

For Literature and Further Information Write:

NATIONAL SPORTS FESTIVAL

716 Rush Street, Chicago 11, Illinois

VITA-SAN **is** **Positive Foot Protection**

Athlete's Foot infection can be prevented by spraying every nook and corner of your athletic quarters with VITA-SAN.

VITA-SAN destroys the fungus which causes Athlete's Foot, and offers a positive protection against this troublesome infection wherever athletes walk in their bare feet.

Spraying the insides of all athletic shoes is an added safeguard — in fact, it is a MUST.

DAWHIDE

DAWHIDE is the toughest, strongest, longest wearing lacing material ever to be used in athletic shoes. It is weather resistant, long wearing, non-slipping. It is sold only by the IVORY SYSTEM — in gross yard spools — to be cut in any desired length.

It comes in a variety of sizes and colors — to meet any and all athletic equipment needs.

Samples on request

*Sole distributors of VITA-SAN and DAWHIDE in the
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RECONDITIONERS OF ATHLETIC EQUIPMENT
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